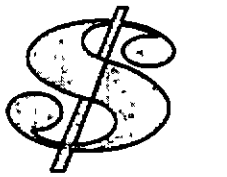

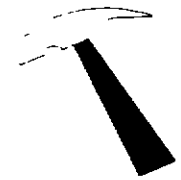

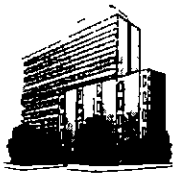

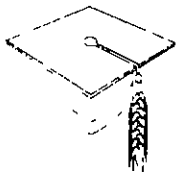

A CAPACITY FOR GROWTH

CALIFORNIA POSTSECONDARY EDUCATION COMMISSION

AUGUST 1995 COMMISSION REPORT 95-9

Summary

This report projects enrollment demand within California public higher education from the present through the year 2005, and then discusses numerous issues relating to California's economic and fiscal ability to meet that demand

The first two chapters of the report provide background on the nature and uses of long-range planning, and provide an overview of several previous Commission planning efforts, most notably the recently published *Challenge of the Century* (CPEC Report 95-3, April 1995)

The next section presents the Commission's enrollment demand estimate for the years 1993 to 2005 This is followed by discussions of institutional physical capacity and long-range capital outlay costs, a ten-year projection of General Fund revenues and expenditures, and an overview of capital outlay revenue and spending options Three appendices offer further explanations of the enrollment projection methodology, Proposition 98 funding, and State bonded debt limitations

The report contains 16 conclusions and eight recommendations Among the most significant are the following (1) California faces an enrollment demand surge of 455,190 students through 2005, with most of those students seeking admission in the final five years of the projection, (2) support budget funding will remain austere, but with reasonable economic growth, may be barely adequate to finance the anticipated expansion, (3) approximately $1 billion per year will be needed for higher education capital outlay, with about 61 percent of that needed to maintain the existing infrastructure, and 39 percent needed for growth, (4) there is no known way that capital outlay funding in such an amount can be raised -- at best, the State may be able to meet just over half of the need, and (5) if the needed funds cannot be raised, California will face many difficult choices in its efforts to maintain both access and quality

The Commission adopted this report at its meeting on August 28, 1995, on the recommendation of its Educational Policy and Programs Committee To order copies of this report, write to the Commission at 1303 J Street, Suite 500, Sacramento, CA 95814-2938 Copies may also be ordered by phone at (916) 445-7933

A CAPACITY FOR GROWTH

Enrollments, Resources, and Facilities for California Higher Education, 1993-94 to 2005-06

CALIFORNIA POSTSECONDARY EDUCATION COMMISSION
1303 J Street • Fifth Floor • Sacramento, California 95814-2938

CALIFORNIA POSTSECONDARY EDUCATION COMMISSION

COMMISSION REPORT 95-9
PUBLISHED AUGUST 1995

Contributing Staff William L Storey and Stacy Wilson

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1 Summary, Findings, and Conclusions

HIGHER EDUCATION'S next ten years will be difficult, frustrating, and challenging Change is in the air, and while change has often been integral to the health of this dynamic enterprise, the changes that are coming will not be welcomed by all concerned, and will probably be greeted with intense resistance from some quarters The collision of an increased demand for services with a more-or-less permanent shortage of funds will involve a reorientation of old habits, the overcoming of much institutional inertia, the loss of resources once taken for granted, and probably the anger of the general public -- and the elected officials who represent it -- because they will have difficulty understanding why higher education cannot continue to be all things to all people

Many of the elements of this collision, or "crossroads" as the Commission characterized it in 1990, are discussed in this report Chapter Two provides an overview, and discusses the function and purpose of long-range planning, the elements of which certainly include the following

- Planning is a discipline with both a knowledge base and a coherent set of tools that permit complex situations to be analyzed,
- Planning is a way to think creatively about the future, to stretch people's thinking in ways that would not occur if a planning process were not in place,
- Planning is a way to provide advance warning of problems for which solutions will eventually be necessary,
- Planning is a way to organize data and information into useful forms,
- Planning is a way to encourage consideration of the interrelationships between people and resources, and
- Planning is a dynamic process that permits administrators and policy makers to make constant adjustments in response to environmental instability

Chapter Three represents the most comprehensive analysis of undergraduate enrollment demand ever developed by the Commission It contains Fall term enrollment projections at the California Community Colleges, the California State University, and the University of California between 1993 and 2005, and offers both baseline and low alternative projections The undergraduate projections are based on three elements (1) an analysis of first-time freshman participation rates arrayed by race/ethnicity in all three public systems, (2) a projection of continuation rates based on a "life-table" analysis that predicts student persistence behavior over a seven to ten-year period, and (3) a projection of community college and other transfers to the universities Graduate enrollments are not projected by the

Commission, since they cannot be demographically derived in the same manner as undergraduate demand, but tend to be governed by institutional and State policy The graduate numbers appearing in the report are from the Demographic Research Unit of the Department of Finance, and are so identified in the report

Chapter Four compares the projected enrollment demand to existing and projected institutional capacities Of necessity, this is a complex analysis that involves a number of assumptions, an understanding of the function and mechanics of space and utilization standards, and an appreciation of the role ancillary facilities play in any institution's ability to serve students, even though such buildings may not impact enrollment capacity directly In this chapter, the Commission discusses the "mismatch problem," which consists of two realities (1) not all campuses that have excess capacity are located in areas where capacity is needed, and (2) the sufficiency of classrooms and teaching laboratories does not guarantee that capacity exists, since other facilities such as faculty offices, libraries, and administrative space are also required and may not be available It is because of this and related problems (e g deteriorated or outdated buildings) that the Commission has drawn a distinction between "technical capacity" and "real capacity," and based its analysis of the need for new facilities on the latter It then compares that capacity to the enrollment projections, and points to the year, for each system, when new facilities will probably be needed

Chapter Five discusses the probable costs of expansion, given the previous discussions of enrollment demand and physical capacity There is a discussion of the history of capital outlay projections, a review of some of the Commission's activities in this area over the past five years, and a summary of the cost estimates The compilation suggests the need for approximately $1 billion per year for the next ten years to both maintain the existing physical plant and to provide for expansion -- if that funding comes from the sale of bonds, debt service will represent an additional cost to the State treasury About 61 percent of the needed amount will be for the existing plant, with 39 percent for expansion

Chapter Six discusses the possibilities of securing the necessary resources to maintain the existing plant and to provide for future enrollment expansion It begins with a projection of General Fund revenues, with high and low alternatives -- a projection based primarily on the relationship between General Fund revenues and a primary economic indicator, California Personal Income The relationship between the two has been quite close over the past 15 years taken as a whole, although Personal Income growth has tended to grow in almost a straight line, where General Fund growth has had greater fluctuations Overall, Personal Income has grown at a slightly faster rate than the General Fund, which suggests the need for some adjustments in the overall tax system

Following the discussion of revenues, the report projects expenditures in five categories over the next ten years, in each case listing numerous assumptions, and offering high and low alternatives The categories include Health and Welfare, Youth and Adult Corrections, K-12 Education, Higher Education, and Other Gov-

ernmental Functions Of these, Health and Welfare and K-12 constitute over two-thirds of the General Fund, Corrections about 9 percent (and growing rapidly), Higher Education about 12 percent, and everything else about 10 percent These relationships are sure to change over the next ten years, although it is difficult to make exacting forecasts, since many variables are involved A major element in the expenditure equation is Proposition 98 Appendix B contains a discussion of Proposition 98 as it impacts the K-12 sector, with a projection of all three of the "tests" that determine State support for the public schools

Chapter Seven is concerned specifically with capital outlay, and the question of resources The earlier discussion of capacity and cost in Chapters Four and Five suggests the need for about $1 billion per year in resources, this chapter discusses ways in which all or part of that funding might be made available, with a particular emphasis on bonded debt The possibility of incurring further debt to finance higher education capital outlay is discussed in this chapter, Appendix C examines these issues in somewhat greater detail

Based on all of the material contained in the previous chapters of this report, the Commission offers the following findings and conclusions

Findings

Undergraduate enrollments

1 The Commission's 1993 to 2005 baseline projection shows growth of 455,190 Fall term headcount students (295,488 FTES) for all three systems, with 337,770 (202,662 FTES) attending the California Community Colleges, 85,356 (62,881 FTES) attending The California State University, and 32,064 (29,945 FTES) attending the University of California The relative shares of the growth for the three public systems are 74 2 percent, 18 8 percent, and 7 0 percent, respectively The vast majority of these prospective students will enroll at the undergraduate level

2 Participation rates for first-time freshmen are projected to improve over the next ten years, but very gradually The figures below reflect the baseline projection discussed above

- At the California Community Colleges, there have been major enrollment shifts caused by resource restrictions and student fee increases, particularly the $50 per unit fee charged to students with bachelor's degrees This volatility has complicated the projection, but the Commission still believes that participation will improve marginally in all racial/ethnic categories and in most age cohorts over the next ten years
- At the California State University, 4 5 percent of African-American high school graduates participated as regular admits in 1993, this percentage is projected to increase to 6 5 percent by 2005 Among Latinos, the percentages are projected to increase from 4 0 to 6 0 percent Among Native Americans, the percentage is projected to remain at 9 0 percent throughout the

projection period For other groups, Whites are projected to increase from 6 0 to 9 0 percent, and Asians from 12 5 to 19 0 percent

- At the University of California, 2 8 percent of African-American high school graduates participated as regular admits in 1993, this percentage is projected to increase to 3 8 percent by 2005 Among Latinos, the percentages are projected to increase from 2 9 to 3 9 percent Among Native Americans, the percentage is projected to increase from 5 5 to 9 0, but the numbers are so small that the overall effect on the University will be slight For other groups, Whites are projected to increase from 5 7 to 7 2 percent, and Asians from 17 1 to 18 4 percent

3 The low alternative projection assumes slightly lower participation rates for various racial/ethnic groups, but even with that adjustment, the projection shows an increase of 330,035 Fall term students (213,401 FTES) for the twelve-year projection period The shares of this growth are 249,586 (149,752 FTES) in the California Community Colleges, 58,227 (42,896 FTES) in the California State University, and 22,222 (20,753 FTES) at the University of California

4 Most of the enrollment surge -- in both projections -- will occur starting in the year 2000 In the community colleges, 58 2 percent of the growth will occur between 2000 and 2005 Comparable percentages for the California State University and the University of California are 76 5 percent and 72 7 percent, respectively

Graduate enrollments

5 Graduate enrollments should grow very slowly, and may not grow at all, depending on resource availability and California's need for personnel with advanced training As noted above, the Commission did not project graduate enrollments but relied on the projection developed by the Demographic Research Unit of the Department of Finance It is clear, however, that new graduate enrollment plans are needed from both the State University and University, and that policy makers should engage in a broad discussion of the appropriate size, by discipline, of graduate schools throughout the State

Special action admissions

6 Special action admissions to the California State University and the University of California will continue to represent a limited but important share of new admissions At the State University, special admits will represent 11 2 percent of all new freshman, they will represent 5 1 percent at the University

Physical capacity of the higher education systems

7 Technically, any institution's physical ability to enroll students is measured only by the availability of classroom and teaching laboratory space As a practical matter, however, modern colleges and universities must also have a sufficient

amount of administrative, library, research (in the case of the University of California), plant maintenance, food service, utility, and other kinds of space to provide viable programs Accordingly, the amount of classroom and teaching laboratory space, while adequate or even excessive for a given enrollment, may not indicate a campus's true capacity

8 On a systemwide basis, and particularly in the community colleges and the State University, there are often local and regional mismatches between space availability and enrollment demand -- a phenomenon caused, in some cases, by poor planning, in others by population shifts, and in some cases, by the deteriorated condition of the buildings themselves These mismatches make it impossible to determine real enrollment capacity through a strict application of space and utilization formulas on a statewide basis

9 As noted above, the Commission's baseline enrollment growth projection of 455,190 Fall term headcount students translates into an annualized full-time-equivalent student growth of 295,488 The low alternative projection of 330,035 Fall term headcount students translates into an annualized full-time-equivalent student growth of 213,401 Greater detail for these aggregate numbers is offered as follows

- In the California Community Colleges, there is a "real" space surplus sufficient to enroll an additional 82,500 full-time-equivalent students (FTES) on existing campuses and educational centers without building new facilities This does not mean, however, that every district has a surplus of space In some districts, there are strong population pressures and a definite need for new construction

- At the California State University, there is a "real" space surplus sufficient to enroll an additional 10,103 FTES This surplus should expand over the next 10 years, however, at no capital outlay cost to the State, as the Monterey Bay campus comes on line By the final year of the projection, Monterey Bay should expand the State University's capacity by another 5,231 FTES

- At the University of California, there is a considerable capacity surplus based on a technical review of existing space and utilization standards Unfortunately, virtually all of that excess -- over 18,000 FTES -- is located on the Berkeley and Los Angeles campuses, which are already at or even above their enrollment limitations as specified by the Board of Regents in their Long-Range Development Plans As a result of this particular form of the "mismatch" problem, the University as a system has a "real" excess capacity in its existing institutions of only 1,829 FTES

10 At the independent colleges and universities, there appear to be between 40,000 and 60,000 available spaces at regionally accredited institutions whose admission requirements are at least as rigorous as at the State University There is considerable evidence that the filling of these spaces could save significant resources in the General Fund, but in order for this to occur, Cal Grant and other student financial aid programs must be increased significantly

The cost of maintenance and expansion

11 The cost of maintaining and expanding higher education's vast physical infrastructure will vary considerably by system, as noted in the following three bullets

- Capital outlay requirements to maintain the California Community Colleges' existing physical plant are estimated at $225 million per year, in today's dollars, on an ongoing basis This does not include routine support budget activities such as janitorial and related building services Capital outlay funding to accommodate the anticipated enrollment expansion is estimated at $105 million per year, which assumes that about 20,000 FTES of the 120,000 FTES in growth that cannot be enrolled in existing facilities will be educated through technological applications and operational efficiencies The total annual need is estimated at $330 million

- Capital outlay funding to maintain the California State University's existing physical plant is estimated at $250 million per year for the next five years, then $200 million per year thereafter, in today's dollars Requirements to enroll the projected growth in the student population should require another $145 million per year, none of which will be used for the new campus at Monterey Bay The total annual need is consequently between $345 and $395 million per year This is considerably below the State University's projections of its needs and reflects the probability of both greater physical plant efficiency and restricted funding

- Capital outlay requirements to maintain the University of California's existing physical plant are estimated at $150 million per year for the next 10 years Requirements to enroll the projected growth in the student population are also estimated at $150 million per year over the next 10 years in today's dollars Given the complexity, diversity, and value of the University's existing plant, the $150 maintenance number will fall far short of the actual need, but it is assumed that many of the University's needs will be met from non-State funding sources

Resources. can California afford to expand?

12 The Commission's projection of General Fund revenues between 1994-95 and 2005-06 suggests annual growth of about 5 2 percent This compares to a projected annual growth in California Personal Income of 6 2 percent, and suggests that California's tax structure may need to be revised to permit revenues to grow consonant with economic growth generally By 2005-06, the baseline projection suggests General Fund revenues of $74 0 billion, an increase of about $31 6 billion from 1994-95 The high and low alternative revenue projections are $77 1 and $70 9 billion, respectively

13 The Commission has developed three expenditure scenarios for State operations and programs To make these scenarios manageable, the hundreds of

State programs have been aggregated into five categories, including Health and Welfare, Youth and Adult Corrections, K-12 Education, Higher Education, and Other Governmental Functions For each spending category, specific assumptions have been listed The assumptions underlying the projections are as follows

- For all three scenarios, it is assumed that annual increases in Health and Welfare spending will decline from the current five to six percent range to around three to five percent
- For the Youth and Adult Corrections, growth of 10 to 15 percent per year is assumed
- For K-12 Education, Proposition 98 is controlling, so the projection is virtually the same in the three scenarios Further, while K-12's share of the General Fund is projected to increase from its current level of 36 1 percent, relatively strong growth in property tax revenues at the local level should prevent K-12 spending from exceeding 40 percent of the General Fund at any time over the 10-year life of the projection
- For Higher Education, the baseline and high alternative projections assume that the Governor's compact, which provides for annual increases of 4 0 percent, will be honored Beginning in 2000-01, when the major enrollment surge is anticipated to occur, it is assumed that annual percentage increases will move from 4 0 percent to 6 5 percent by 2005-06 The high and low expenditure alternatives discussed above refer mostly to spending rates in noneducational areas, thus, the "low spending alternative," which suggests lower spending on Health and Welfare and Corrections, actually permits greater spending for higher education, with increases up to 7 0 percent per year by 2005-06 Conversely, the "high spending alternative" virtually mandates lower spending on higher education
- For Other Governmental Functions, it is assumed in the baseline and low alternatives that annual increases will be 2 0 percent per year, less than inflation throughout the 10 years of the projection The high spending alternative squeezes funding in many areas, and reduces annual increases for this category to 1 0 percent per year

Capital outlay· a discussion of options

14 The Commission discussed 13 possible ways to accommodate higher education's capital outlay needs (1) general obligation or lease-payment bonds, (2) local bond issues for community colleges, (3) Mello-Roos districts for community colleges, (4) the State General Fund, (5) earmarking a portion of General Fund revenues, (6) higher taxes, (7) lease-purchase agreements, (8) private fund raising, (9) State and local/private matching, (10) student fees, (11) more intensive space utilization, (12) year-round operation, and (13) technology

15 The Commission examined the issue of bonded debt in some detail, and found that the need for capital funding far exceeds the State's ability to finance the need through bond sales alone In testimony before the Joint Legislative Budget Committee, representatives from various firms specializing in bond sales indicated that California should resist incurring debt that exceeds five to six percent of the General Fund The State is currently at about 5 2 percent In future years, it seems probable that the State can sell about $2 0 to $2 5 billion in bonds per year, in today's dollars -- an amount that represents less than half of the identifiable need, excluding transportation needs, which are generally funded by the gasoline tax Should efforts be initiated to finance highway construction projects through bonds of any kind, the amount available for higher education would come under even greater pressure

16 Many of the other options for financing capital outlay discussed in this report are viable, but usually operate on a very limited scale For example, local bond issues appear to be a good answer for the community colleges, since there is so much unused debt capacity at the local level, yet they are very difficult to pass because of the two-thirds majority requirement Mello-Roos districts are a useful option, but can only be used in very limited circumstances Private fund raising is a serviceable option for the University of California, particularly if the State can offer matching funds, but historically, most of the University's fund raising has been directed to the construction of supporting facilities such as athletic arenas and museums, there is strong evidence, however, that the University is enjoying increasing success in securing contributions for strictly academic purposes Student fees could raise a considerable amount of money, but are extremely unpopular as a revenue source, and are consequently unlikely to be approved Other options either raise too little money to be seriously considered, are too expensive to implement, are untried and indefinite as to results, or fail the test of political viability

Conclusions

1 California faces a powerful surge in enrollments over the next ten years -- a surge generally referred to as "Tidal Wave II" -- that will be caused by both strong population growth and rising expectations among historically underrepresented groups As noted in the first finding above, this surge should produce an increase of 455,190 students in California public higher education by 2005 The major share of the enrollment increase will occur between 2000 and 2005 (62 7 percent), which provides planners and policy makers with a brief window during which many important decisions will need to be made Some of the parameters of those decisions are detailed in the seven additional conclusions presented below

2 Given the enrollment projections and the space capacity analysis, the Commission believes the three public systems will need to expand in about the following manner over the next ten years

- *California Community Colleges* Given anticipated efficiencies and existing excess capacity, the Commission estimates that approximately 100,000 FTES

of the total anticipated enrollment growth of 202,662 FTES will have to be enrolled in new facilities over the next ten years Of that 100,000 number, it is estimated that 75,000 can be enrolled in new facilities on existing campuses, with 25,000 enrolled at new campuses and educational centers Such a number might suggest the creation of five to ten new campuses and educational centers, but many other combinations are possible, including the evolution of already approved centers (e g Lompoc, Folsom Lake, Madera, Palmdale) into full-service colleges There may also be a need to establish a few other centers in areas with special population pressures, even though space surpluses exist elsewhere

- *California State University* The Commission's enrollment projection shows growth of 62,881 FTES through 2005-06 (85,356 headcount) Given existing real capacity in the system, it is estimated that 10,103 can be enrolled in existing facilities -- plus 5,231 at Monterey Bay -- which leaves a need for facilities to house 47,547 FTES over the next ten years The State University has already formulated preliminary, and in some cases well-developed, plans to enroll another 33,000 on existing campuses and centers, if funding can be secured With growth at existing educational centers, the continued development of San Marcos and other underbuilt campuses, and the development of the new Ventura campus, it is likely that the State University will be able to accommodate the remaining 14,500 FTES without requiring another full-service campus through the final year of this projection, and perhaps longer

- *University of California* The Commission's analysis of capacity at the University of California indicates that continued growth on the eight general campuses will obviate the need for a ninth general campus (the central valley campus) through the final year of this projection, 2005-06 However, the capacity analysis does indicate that 1,900 students will remain unserved as of 2005-06 due to capacity restrictions While it is assumed that the University can accommodate a number that small through greater efficiencies or minor overenrollment throughout the system, it is likely that a new general campus will ultimately be required at an as yet undetermined date after 2005 Given the extraordinary lead times to develop such a campus -- at least five years from ground breaking to occupancy -- plus additional time for planning and financing, enrollment growth at the University will need to be watched closely over the next five years in order to determine when the new campus should enroll its first class

3 Some of the "nightmare scenarios" that project non-higher education spending at levels sufficient to destroy California higher education are unlikely to occur Such a conclusion, however, depends on many assumptions, including revenue growth at anticipated rates at both the State and local levels, and strong spending discipline for certain high growth areas of the budget, particularly Health and Welfare, and Youth and Adult Corrections The Commission believes, and expects, that California's Governor and Legislature will exercise

the necessary spending discipline, since the alternative -- the serious erosion or crippling of higher education -- is fundamentally unacceptable

4 Even with reasonable revenue growth and strong spending discipline, however, support budget funding for higher education will barely meet growth and inflation expectations under the Commission's baseline enrollment and resource scenarios Further, it is in the nature of projections that minor changes in the assumptions can produce dramatic results, many of them adverse Such changes certainly include stronger enrollment pressures, reduced revenues, or greater than expected demands on the General Fund from other programs Accordingly, it is prudent to conclude that higher education support budgets for the next ten years will probably not be generous, and could easily be even less tolerable than projected in the baseline scenario

5 If the Commission's baseline or optimistic resource alternatives do not materialize, California higher education will face some very hard choices with regard to support budgets As the Commission noted in 1990, those choices include escalating student fees, program reductions, enrollment rationing, personnel layoffs or early retirements, and general austerity

6 While the data indicate that support budget funding may be minimally adequate, the prospects for capital outlay funding are exceptionally poor Given an annual need of approximately $1 billion -- about 61 percent to maintain the existing physical plant, and about 39 percent for expansion -- the Commission can find no combination of practical possibilities that would produce savings or revenue sufficient to satisfy the total need Under the best of circumstances, it may be possible, through strong local efforts from community college districts, greater fund raising by the two university systems, the passage of bond issues, and more efficient operation, to raise about half to two-thirds of the needed funds

7 The funding mechanisms for capital outlay require much greater study by both the systems and the Commission This fact is well known to the members of the Commission's Capital Outlay Planning Advisory Committee (COPAC), who generally agree that higher education faces great challenges in the coming years At the Committee's most recent meeting, many of the options for funding capital outlay, or reducing capital costs, that are presented in Chapter Seven of this report were discussed at length, and while no consensus was reached on any specific solution to the problem, the group focused on seven subject matter areas that appeared to offer the greatest promise for meeting the demands of Tidal Wave II These included the following (1) bond sales (both General Obligation and Lease-Payment), (2) the lease-purchase of facilities in some circumstances, (3) increasing enrollments in the independent institutions, (4) greater use of technology, including both multi-media and distance learning, (5) enhanced summer terms as a possible new form of year-round operations, (6) improved student flow through the institutions, which might reduce time to degree and include new approaches to remediation, and (7) State/local capital outlay matching arrangements, particularly for community colleges, to maximize revenues from bond sales With the exception of bond sales, which fall

into the category of accepted practice, but which probably can meet no more than half of the need for capital outlay funding, all of the other ideas will require much greater study and analysis in the coming year or two before implementation decisions can be made Such a study has been proposed already by the Commission in *The Challenge of the Century*, and will commence this Fall, with full participation by COPAC

8 If sufficient funding cannot be found, the consequences will surely be adverse for students and the State as a whole, as well as for the three public systems In all probability, both access and quality will suffer, and quite possibly the concept of reasonable cost as well These are the three elements -- access, quality, and affordability -- that have formed the tripod on which the Master Plan has rested for 35 years, there should be little doubt that all three are threatened in the current environment

Acknowledgments No study is ever the product of a single person or even a single organization, and this report is no exception For the past two years, the Commission has benefitted immeasureably from the contributions, advice, and criticism of a large number of people who have been willing to serve on the Capital Outlay Planning Advisory Committee (COPAC) While there was not always agreement among the members, nor between the members and the Postsecondary Education Commission, it is a certainty that the quality of this report would have been diminished without the contributions of those listed below In acknowledging the fine work of many people, however, it should be emphasized that COPAC was, and is, an advisory committee No votes on any of the contents, findings, or conclusions of the report were ever taken, and the reader should not regard the report as anything but the sole responsibility of the Commission With that caveat, the Commission wishes to express its gratitude for the professional expertise and informed judgment of the following individuals

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2 Background

Introduction

The imperative for sound planning may never have been greater than in the 1990s In past decades, California's powerful economic engine produced resources sufficient for enrollments to expand rapidly at the same time that higher education's instructional, research, and public service functions were enhanced in quality, and to do both without major increases in student fees Today, and probably for the foreseeable future, it is increasingly evident that California will find it difficult to support its higher education institutions at historic levels, and that new ways must therefore be found to educate a new wave of students that will seek admission during the next ten years That enrollment surge, the size and composition of which is discussed in detail in Chapter Three of this report, has been characterized by University of California President Emeritus Clark Kerr as "Tidal Wave II" When combined with evident, and probably enduring, resource constraints, this growth surge represents an unparalleled challenge to planners, policy makers, administrators, faculty, students, and citizens How that challenge is met, or not met, will send a powerful message to the next generation of Californians about the real possibilities for social, economic, and cultural advancement

In the late 1980s, when California was enjoying an immense economic expansion, the California Postsecondary Education Commission warned of leaner times ahead, and the negative effect they would have on higher education Many forecasters, including the Commission on State Finance, as noted in Chapter Six of this report, thought State resources and programs would continue to expand, and that most public needs would be met without undue difficulty The Postsecondary Education Commission saw a different scenario, and said so in its prescient, if controversial, report on long-range planning, *Higher Education at the Crossroads* (CPEC 1990) That report suggested that revenues would not grow as fast as in previous decades, that the State would not be able to spend even the revenue it had because of the restrictions of the Gann spending limitation, and that the demands of various State programs were increasing at substantially faster rates than the increase in General Fund revenues The convergence of these forces -- the "Crossroads" -- was very likely to produce a period of great difficulty for higher education

That era of adversity arrived in the first half of the 1990s The primary cause was not the Gann limit -- the restriction on public spending was relaxed through Proposition 111 in 1990 -- but the worst recession California had experienced since the Great Depression, yet the result was exactly the same as the Commission had feared a severe constraint on available resources As the Commission stated in January of 1990

> the options for maintaining access and quality in the face of enrollment

growth, without adequate resource availability, are unfortunately both limited and unpleasant If the voters fail to support relief in the spending limit, the Commission recommends

1 All plans for expansion should be suspended and the enrollment estimates recalibrated to reflect the new policy assumption of reduced growth in State resources

2 The current policy assumptions underlying the Master Plan should be reevaluated to reflect reduced State support All options for living with less should be explored and their consequences identified

3 The Commission should be prepared to take a lead role in putting options for reduced growth before the Governor and the Legislature (1990, p 7)

There are at least two poignant ironies in these words First, had Proposition 111 been defeated and the Gann limit therefore maintained, but General Fund growth continued as it had in the 1980s, higher education would actually have been better off Second, even though Proposition 111 passed, virtually every one of the options listed by the Commission in 1990 as "not good ones" has been implemented to some extent Most expansion plans have been suspended or delayed, serious examinations of programmatic differentiation have occurred, more students have been diverted to the community colleges, principally from the State University, student fees have increased dramatically at the State University and the University, and significantly in the community colleges, particularly for baccalaureate degree holders, high cost programs are under review in all three systems Further, the "no-tax policies," which the Commission referred to in the *Crossroads* report, are even more resilient today in their political support than they were five years ago, and may even have been supplanted by a strong desire to reduce taxes further

Recent evidence of economic recovery in California, which was confirmed by the UCLA Business Forecasting Project in December 1994, supports the Commission's belief that the General Fund may soon return to steadier growth in the five to six percent range While this is hopeful news, such growth is still two to three percentage points less per year than in the 1980s, and it does not negate one of the central premises of the *Crossroads* report that future resources will be insufficient to support higher education at historic levels of quality, especially in light of the coming surge in enrollments California may have weathered the "Great Recession" of the 1990s, but lying in the wreckage of that economic reversal are a $4 billion debt that must be repaid, a large reservoir of pent-up demand for services, and a constitutional straight jacket on spending produced by a series of voter initiatives dating back to Proposition 13 Factors such as these will act as a frustrating ball and chain on California's fiscal maneuverability as it faces the challenges of the current decade and the new century

The function and purpose of long-range planning

The economic and fiscal misfortunes of the past five years, and the probability of continued fiscal stringency for the next five to ten years, have increased the need for comprehensive long-range planning for all of higher education That need has long been recognized by the Legislature, and led to the designation of the Commission as the State's official long-range planning agency for higher education Now, with a difficult past transitioning into an uncertain future, the need to plan, and to understand planning's uses and limitations, has never been greater

Planning has sometimes been regarded as no more than a common-sense approach for organizing data and information, financial resources, human expertise, and the various structures of large organizations Within the fiscal or economic arena, planning has been seen as a way to predict the future based on past trends and a set of assumptions about future events Many see it as an activity one does occasionally, perhaps every five or ten years or longer For example, the *Master Plan for Higher Education in California, 1960 to 1975* (Education 1960), is often viewed as the product of a planning effort that has stood the test of time and that is as valid today as it was some 35 years ago Other documents dealing with such issues as structure and governance, student fees and financial aid, enrollment growth, faculty and staff compensation, physical facilities, and other subjects are sometimes seen as plans when they are really nothing more than a discussion of contemporary issues

Because there is often confusion about what planning is, and is not, it may be useful to consider a number of elements that should characterize any well conceived planning process At a minimum, they include the following considerations

1 *Planning is a discipline*

The Society for College and University Planning, which is the premier higher education planning organization in the United States, describes the discipline of planning this way

> planning is a mental construct used to describe a broad variety of concepts and processes It carries multiple meanings Planning includes both the identification of objectives and the systematic organization and integration of information and other resources Its nature can be strategic, focusing on organization mission and environment. It can also be operational, focusing on the achievement of mid-level goals and objectives (1993, p 5)

Increasingly, the general perception of planning as a common-sense approach to organization is changing to a new perception where planning is a knowledge area, an academic discipline with its own base of data and information (e g economic reports, fiscal analyses, enrollment data, etc), an assortment of techniques that have proven to be useful as organizational principles (e g focus groups, modeling, futurism, environmental scanning), and a defined set of tools (e g computers, statistical software packages, networks) As the idea of planning as a knowledge area has grown, it has evolved into a discipline of its own, in the same sense that mathematics, psychology, English literature, or history are disciplines Having

said that, however, it should quickly be added that while all sciences are disciplines, not all disciplines are science, and one of those that is not is planning

Although the tools and techniques used by planners are improving in both their utility and precision, planning remains, and will always remain, more art than science As such, it is important to remember that planners do not attempt to predict the future, but to consider a range of probabilities that may shape it Prediction is far more the province of those who create budgets with specific caseloads and dollar appropriations to which agencies are expected to adhere Planners take a longer view

2 *Planning is a way to think creatively about the future.*

Of necessity, most of the time required to administer large organizations is devoted to short-term considerations There are budgets to develop and approve, personnel to manage, and a host of other tasks that require immediate attention Yet any organization that considers only its day-to-day challenges may eventually find itself adrift, perhaps having lost the forest for the trees To take an agricultural example, a farmer is able to plow his fields in straight lines because he keeps his eyes on a point in the distance If he only looked at the ground directly in front of the tractor, he would find at the end of the day that the furrows were more winding than straight Similarly, managers and administrators need to stretch their vision for some distance into the future, and to consider possibilities and potential circumstances that may be far removed from immediate concerns

Planners encourage policy makers and others to stretch their thinking, to consider alternatives that may not occur for some time, but which may require immediate attention Physical plant development is one example of a responsibility where a long view is mandatory Those engaged in planning may not know the final configuration or architectural style of a proposed building, but by examining enrollment projections, curricular needs, and potential fiscal resources, for example, a creative process ensues that will eventually position the necessary resources in the right place at the right time

3 *Planning is a way to provide advance warning of problems that need to be addressed.*

Because planning is a way to think creatively about the future, to stretch people's thinking in new directions, it also represents a way to identify problems long in advance of the time when they will need to be resolved If, for example, a surge in enrollments is probable beginning five years in the future, as Chapter Three of this report suggests, steps can be taken now to provide necessary facilities and funding to accommodate them Further, a sound planning process may suggest alternative ways to serve students, prompt a needed re-examination of program duplication, lead to better uses of technology or different course scheduling systems, or indicate that alternative sources of revenue will have to be found Were it not for the planning process, it is far more likely that events will control the managers, rather than the other way around Control of events at any time is difficult, but a well

articulated planning process can make some elements of the future far more manageable than would otherwise have been the case

Good planning can also provide guideposts for when decisions need to be made, and establish a specific agenda for dealing with problems that are likely to occur, such guideposts create decision frameworks, which create order As an example, the Coordinating Council for Higher Education -- and now the California Postsecondary Education Commission -- have throughout the history of both agencies been responsible, in the words of the Master Plan Survey Team, for advising the Governor, the Legislature, and the higher education systems on such matters as differentiation of function, the appropriateness of programs, and the "development of plans for the orderly growth of higher education " Through the Commission's planning function, higher education's growth, and even its occasional retrenchment, have been more orderly, and the Commission continues to provide advice and counsel concerning the time frame for important decisions

4 *Planning is a way to organize data and information into useful forms*

With the advent of the computer, the photostatic copier, the fax machine, and any number of other devices, the amount of available data has multiplied exponentially Now, the Internet with its "Gopher" technology and the "World Wide Web," in concert with new and more powerful personal computers, are promising a data explosion unimagined only a few years ago For some, that "promise" constitutes a danger, for there is an increasing probability that the sheer volume of data may overwhelm those for whom it is intended to be useful Anyone who has "surfed the Internet" can report that while there is a tremendous amount of useful information on it, attempts to find specific items of information are often frustrated by the sheer size and complexity of "web technology "

Planners are well aware of the fact that not all data represent useful information, and that it is useful information that is needed more than ever That fact constitutes a powerful challenge, for while any planning document can contain mountains of data, those data may not be helpful to decision makers It is part of a planner's job to organize the mountain in such a way that useful decisions can emerge, and to make reasoned judgments about both the validity of the data and its relevance within a specific context The fact that something is true does not necessarily make it useful

5 *Planning encourages people to consider the interrelationships between people and resources*

While planners must be concerned with data, one of their primary functions is to interpret the meaning of data for policy makers In higher education, enrollments represent data, but in a planning process, the historical numbers must be projected into an uncertain future, and that process can involve numerous assumptions about human behavior, resource availability, physical facilities, organizational mission, and other factors Any long-range plan that has been thought through to a reasonable conclusion will discuss the relationships that exist, or could exist, among many

factors, and between different permutations of those factors The planning process itself will engage people from different parts of the organization or system It will encourage them to consider a range of possibilities, always remembering that planning is not just a procedure for analyzing numbers, but a process for creating change that will affect the lives of real people

In the analysis contained in this report, the enrollment projections measure the demand for higher education services -- particularly at the undergraduate level -- based on both historical trends and various reasoned assumptions about rates of participation, transfer, and continuation Yet the projection itself does not constitute a plan, but only a stage in the planning process The next stage in the process is to relate the numbers to the availability of resources, which involves a consideration of physical capacity, support budgets, General Fund revenues and expenditures, bonded debt, and construction costs All of this ultimately coalesces around a series of conclusions and options that relate the people who will desire services to the availability of the resources From there, policy options will emerge that will eventually lead to specific decisions

6 *Planning is a dynamic process.*

It is an axiom of planning that all plans must assume environmental stability, which never occurs The reason it must be assumed is that planners cannot, and do not attempt to, predict the future The prediction of future events may be the job of prophets and seers, but it has no place in the job description of a planner Higher education planners can be reasonably confident, for example, that over the course of a ten-year plan, periods of strong and weak economic growth will occur that will affect the flow of fiscal resources and thereby produce actual enrollments that are higher or lower than the long-range enrollment projection Since they cannot predict when such events will occur, however, they must assume a more or less stable economic landscape There may also be totally unforeseen events, such as natural disasters, that will affect the assumptions of a plan, but there is no way to integrate such possibilities into the plan itself

Because the future is inherently unstable -- yet must be assumed to be stable for planning purposes -- it is essential that planning be a continuous or dynamic process, one that is constantly fine tuned and adjusted as events unfold It is a serious error to assume that any long-range plan will be followed in all of its particulars for the entire span of its view, a span that usually encompasses a 5-, 10-, or 15-year period As noted earlier, plans are valuable because they encourage people to consider future possibilities and alternatives for which actions need to be taken in the present, but, since the future is not known, the plan itself must be capable of adjustment and periodic renewal Accordingly, planning processes should be continuous, and while short-range -- one or two years -- budgetary and other decisions should always be made with reference to a long-range plan, the long-range plan should be considered as more of a guideline than a prescription When guidelines, or long-range plans, become prescriptive, the dynamism of the planning process often fails, and administrators and policy makers substitute the expedient and

commonplace for the thoughtful and creative

Having outlined much of what planning is in general, and what long-range planning is in particular, a few brief comments on what planning is *not* are in order

- Planning is *not* a way to predict the future The future is uncertain and cannot be predicted precisely Planning is a way to organize probabilities
- Planning is *not* a substitute for good management Good plans are useless without good managers, yet good managers are powerless without good plans to guide them
- Planning is *not* a rigid prescription for decision making, but a guideline that informs decision-making processes, and makes good decisions more likely
- Planning offers *neither* a barrier to nor a mandate for change, but a way to make change orderly, functional, and useful

The aforementioned *Crossroads* report initiated a planning cycle that has continued with few hesitations since Three other planning documents were published by the Commission that same year *Technical Background Papers to "Higher Education at the Crossroads: Planning for the Twenty-First Century"* (1990b), *A Capacity for Learning* (1990c), which dealt with space and utilization standards in higher education facilities, and *Guidelines for Review of Proposed Campuses and Off-Campus Centers* (1990d), which updated the criterion for the review of new campuses and centers and strongly encouraged better long-range planning activities in the three public systems of higher education In 1992, the Commission published four more planning documents *Prospects for Long-Range Capital Planning in California Public Higher Education* (1992a), which discussed the planning process for physical facilities, *A Framework for Statewide Facilities Planning* (1992b), which created the Commission's Capital Outlay Planning Advisory Committee and institutionalized the Commission's long-range planning process, *Guidelines for Review of Proposed University Campuses, Community Colleges, and Educational Centers* (1992c), which further refined the review process for new institutions, and *Preparing for the Coming Surge of Students Eligible to Attend California's Two Public Universities* (1992d), which provided the first indication of the magnitude of "Tidal Wave II" In 1993, the Commission added *Creating a Campus for the Twenty-First Century The California State University and Fort Ord* (1993), which discussed future environmental conditions, the uses and effects of technology, the quality movement in higher education, and the idea of a "charter university" that would operate with few legal and bureaucratic restrictions

Throughout 1994, the Commission labored with its most comprehensive planning effort to date, an effort that includes the present report, but which primarily involves a series of recommendations that collectively constitute *The Challenge of the Century* (1995) That report is discussed in the next section of this introduction

The challenge of the century

The title is imposing, but no less so than the challenge facing California higher education Many of the details of that challenge -- strong enrollment demand, limited resources, inadequate facilities, and California's increasingly restricted ability to incur new debt -- are presented in this report, but in advance of this effort, the Commission thought it wise to present to the Governor, the Legislature, and the higher education institutions a global view of higher education's options at or near the turn of the century To that end, the Commission engaged in a comprehensive review designed not merely to massage old verities, but to take a new and fresh look at the enterprise, to suggest a new approach to the ways in which higher education should be shaped for the coming generation, and the manner in which it should conduct its business That report -- *The Challenge of the Century* -- which the Commission approved on April 3, 1995, offers numerous recommendations for change that cover subjects as seemingly diverse as constitutional revision, funding priorities, student fee policy, regional cooperation, and institutional effectiveness Taken as a whole, the *Challenge* report may provide as many new and innovative ideas, and present as many challenges for change, as the Master Plan Survey Team presented to the people of California over a generation ago in 1960 Then, as now, the challenge was always to fulfill the time-honored mandate contained in the State Constitution, that

> A general diffusion of knowledge and intelligence being essential to the preservation of the rights and liberties of the people, the Legislature shall encourage by all suitable means the promotion of intellectual, scientific, moral, and agricultural improvement (Article IX, Section 1)

Drawing from the spirit of those words, the *Challenge* report offers its vision of education's role in this State's life

> Education is the State's most important function Broad-based or universal education is the prerequisite for democratic institutions, the motive force behind economic growth, the preserver of culture, the foundation for rational discourse, the best means to upward social mobility, and the guarantor of civilization No democracy ever survived, no economy ever prospered, and no culture ever advanced without a healthy educational system The roots of all that Californians regard as valuable, useful, or productive -- even noble -- can be traced to an elementary, secondary, and postsecondary education that until recently has been unsurpassed (1995, p 2)

The implication of this vision is that the quality of California's educational system is eroding, a process that must stop if California is to remain a world leader, and the quality of life for its residents is to be sustained The reasons for the erosion are detailed in the *Challenge* report reduced legislative budgetary discretion caused by voter-approved initiatives, increased spending pressures from other sectors of the budget, particularly from the Youth Authority and Corrections areas, and the "super majority" requirements to approve local bond issues There is also the growing problem of societal splintering, of increased suspicion between and among various classes of people. affluent versus poor, old versus young, urban versus

rural, educated versus uneducated, and the continuing friction among various racial/ethnic groups To all of this, and as discussed in Chapter Six of this report, it should be added that combined State and local revenues are not growing as rapidly as the overall economy

The *Challenge* report contains four chapters and a concluding section (1) State government finance, (2) student fees and financial aid, (3) educational productivity and efficiency, and (4) statewide and regional cooperation and collaboration In arraying the report in this way, the Commission endeavored to persuade Californians that solving education's problems -- and consequently many of the State's problems -- does not lie with a single group or sector of this vast and diverse State While the problems are great, it is not just the responsibility of the taxpayers, the Legislature, the students, the administrators, the faculty, or any other single group, to solve them It will take a major effort by many people

Accordingly, the *Challenge* report offers 24 recommendations for change

- Chapter One recommends constitutional revision to bring public revenues into accord with economic growth, to use the independent sector more fully, to regularize higher education funding levels, to review the missions of the systems, to establish expenditure priorities if resources must be rationed, and to find new ways to finance capital outlay costs
- Chapter Two recommends that student fee levels be rendered stable, predictable, and affordable, that financial aid be funded more generously and directed to the neediest students, and that elementary and secondary students and parents be better informed about higher education opportunities, and the required skills and costs involved in taking advantage of them
- Chapter Three recommends ways to increase productivity and efficiency in higher education It suggests incentives for more efficient operation, funding for a student information system, and opportunities for students to demonstrate competencies in return for course credit This section also calls for better high school preparation, a broader use of technology to both raise quality and save money, more complete information on institutional effectiveness, and the development of new graduate enrollment plans by the California State University and the University of California As to this last recommendation, the new plans should emphasize the needs of the State in various academic or vocational fields, create greater program specialization, avoid unnecessary duplication with independent institutions, consider the need for research productivity, and explore the possibility of shortening time to degree
- Chapter Four calls for increased regional collaboration among institutions, including public schools It suggests a more active role for the California Education Round Table and other intersegmental bodies, joint meetings among the governing boards, and an improved governance structure for the California Community Colleges

The *Challenge* report concludes with a warning and a summary of the challenge itself Much of that statement warrants repetition

> Because of the recent recession and continuing increases in competition for scarce tax dollars, educational opportunity and quality in California are in danger of eroding The State's public schools, once well-funded, now rank in the lowest quartile of State funds nationally, and over the past four years, its colleges and universities have been starved for resources
>
> If California is to meet the challenges of the twenty-first century, education must be restored among its essential public services This will involve a fundamental reordering of the State's fiscal priorities Californians cannot assume that educators and educational institutions by themselves will be able to maintain and expand educational opportunities adequately into the twenty-first century Educators have a major responsibility, but they must count on others -- students, parents, voters, elected officials, and employers, among others -- to share some of this responsibility, if these opportunities are to be a reality
>
> - Students must accept the responsibility of preparing themselves academically to meet admission requirements
> - Families -- and particularly parents -- must help instill in young children a love of learning, faith in their future, a sense of personal discipline, and a willingness to work and save for the future
> - Voters and elected officials need to demonstrate their commitment to the well-being of the next generation
> - Employers need to cooperate more closely with educators to clarify expectations for graduates and new employees (p 29)

If there is a single message in this statement, and indeed in the entire *Challenge* report, it is one of personal responsibility Unless large sectors of the population of this State stop waiting for someone else to step forward, and step forward themselves, then it is likely that everyone will step backwards together

The Capital Outlay Planning Advisory Committee

In August 1992, the Commission approved a report entitled *A Framework for Statewide Facilities Planning* (CPEC 92-17) The opening paragraphs of that report offered the following assessment of the dilemma facing California higher education

> California State government is facing a circumstance unique in its history a confluence of massive growth and shrinking resources -- of growing demands for services concurrent with an immense budgetary deficit that is both economically cyclical and programmatically structural To deal with this dilemma of contraction and expansion, comprehensive planning and the conservation of available resources have never been more needed, and perhaps nowhere is this more true than in higher education (p 1)

The Commission went on to remind State policy makers that it had warned of severe shortages in capital outlay funding as early as 1987 (CPEC 1987), and stated then that such shortages could result in access restrictions, diminished instructional quality, and health and safety deficiencies In 1992, it added

> This assessment remains no less true today, and it suggests that, if the need for resources is great, the need for planning to manage those resources is even greater To make planning effective, it has become clear that many of the disparate elements that constitute capital outlay planning and review -- projections of enrollment and costs, space standards, the review of proposals for new campuses and centers -- need to be integrated into a single planning framework (ibid)

Because of these concerns, the Commission created the Capital Outlay Planning Advisory Committee (COPAC), which includes representation from each of the three public systems of higher education, the independent colleges and universities, the Governor's Office, the Department of Finance (both the Budget Division and the Demographic Research Unit), and the Office of the Legislative Analyst It was authorized to consider a number of topics, including long-range capital outlay cost projections, ways to reduce the need for additional facilities, and space and utilization standards Subsequently, the issue of enrollment projections was added to the list, and almost immediately became a focus of many of its meetings

COPAC met for the first time on August 3, 1993, to discuss a working agenda, which dealt generally with the nature of a comprehensive long-range planning model -- and specifically on the first element of that model, enrollment projections Subsequent meetings were called to discuss enrollment projections in great detail, capital outlay needs and costs, General Fund projections, and the other items that are now contained in this report A first draft of those parts of the report that did not deal solely with enrollment projections was considered by the committee in February of 1995 The information item that was presented to the Commission on June 5 was discussed in detail at the most recent meeting of the committee on June 14 It is anticipated that COPAC will continue to meet several times each year in an effort to devise new ways to satisfy the growing demand for access to California higher education

Contents of this report

This report, *A Capacity for Growth*, should be considered as a companion to *The Challenge of the Century* Although it is being released at a later date than the *Challenge* report, *A Capacity for Growth* has been developed as a parallel effort with an overlapping developmental time frame In one sense, it presents the technical background to much that the *Challenge* discusses, but it is also an expansion of numerous themes, and a verification of many of the *Challenge* report's assertions While it contains its own findings and conclusions, all of which are consistent with the *Challenge*, it offers no recommendations, since all of those the Commission deems necessary at the present time are already contained in the *Challenge* There is, however, at least one additional task that will require attention, and it relates to Recommendation 1 9 in the *Challenge* report

Through its Capital Outlay Planning Advisory Committee, the Commission should develop recommendations by this autumn for the Governor and the Legislature to consider in financing capital outlay for higher education through 2010

As noted above, planning is a dynamic and ongoing process For the Commission, neither *The Challenge of the Century* nor *A Capacity for Growth* marks the end of the planning cycle, but another stage in the process The capital outlay financing report, and subsequent reports, will represent further strides forward in a continuing effort to make higher education more accessible, more resilient, and better able to contribute to the continued social, economic, and cultural health of California

In the succeeding five chapters of this report, the Commission discusses some of the quantitative challenges of the next 10 years, through 2005-06

- Chapter Three presents a detailed discussion of enrollment projections for the California Community Colleges, the California State University, and the University of California These projections were developed using the most sophisticated and comprehensive computer modeling the Commission has yet employed, and the Commission has discussed its methodology at length with the systems involved and with the Demographic Research Unit of the Department of Finance It strongly suggests that "Tidal Wave II" is a reality, and while enrollments will grow in the next five years, it seems clear that its major impact will not be felt until 2000 and later

- Chapter Four discusses the physical capacities of the three public systems of higher education from the point of view of both the technical or "paper" capacities of the State's colleges and universities, and the real capacity It suggests that there is a considerable amount of unused capacity in the California Community Colleges and the California State University, but only modest room at the University of California within existing facilities Superimposing the enrollment projections on the capacity figures, this section suggests the amount of physical growth that will be required in the next ten years

- Chapter Five discusses the probable capital outlay cost, not only to provide space for the coming enrollment surge, but also to maintain the existing physical plant

- Chapter Six asks the question, "Can California Afford to Expand?" It is a discussion of the ten-year prospects for the State General Fund for both revenues and expenditures Given the enrollment projections and the discussion of facilities, a general idea of the condition of the General Fund is necessary, since higher education is financed through the General Fund and is part of the so-called "discretionary" part of the budget -- the portion that is not protected by statute, constitutional restriction, or federal laws and regulations This chapter offers various assumptions and possibilities that could have wide-ranging effects on higher education's ability to serve the State Appendix B contains a special discussion of Proposition 98's potential impact on General Fund expenditures

- Chapter Seven is entitled "Capital Outlay Funding A Discussion of Options" It presents 13 possible options for either raising revenue or reducing expenditures, and points to some areas that will require closer examination There is a lengthy discussion of the problem of bonded debt, the technical details of which are included as Appendix C

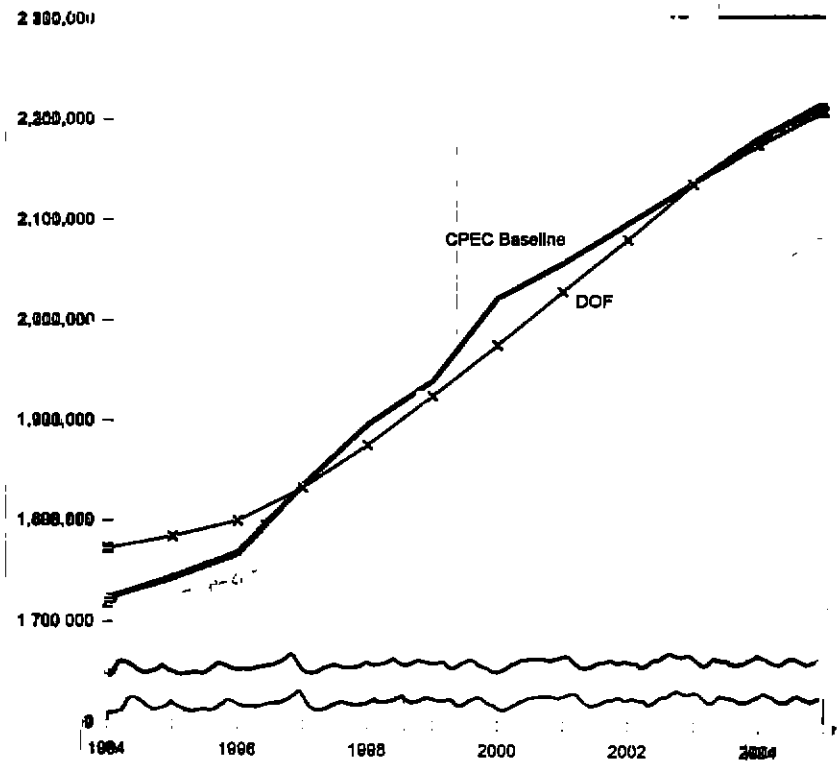
The Commission's findings and conclusions, along with a summary of the entire report, are shown in the first chapter

3 California Public College and University Enrollment Demand, 1994 to 2005

THE California Postsecondary Education Commission forecasts that the State should prepare for a 24 3 percent increase in its public college and university enrollments by the year 2005 This growth, involving a numerical increase of 441,000 undergraduates from 1 77 million two years ago to 2 21 million ten years from now, presents the State with immense challenges regarding access to higher education as well as the quality and affordability of college

This Commission "Baseline Projection" of undergraduate enrollment demand compares closely to the most recent undergraduate enrollment forecast by the Demographic Research Unit of the Department of Finance, as shown in Display 1 The two agencies employ somewhat different methodologies for their forecasts, but both arrive at very similar estimates of total undergraduate demand by the year 2005 Technically, the Department's enrollment model is more sensitive to institutional constraints, historical enrollment trends, and estimates of the State's ability to provide adequate funding for higher education than is the Commission's On the other hand, the Commission's model estimates pure enrollment demand, in that its projection of student participation is not restricted by the limitations of physical plant capacity or the availability of institutional and State resources for operations and capital outlay The Commission's Baseline Projection anticipates that undergraduate demand will total 2,210,496 in 2005, while the Department projects undergraduate enrollment at 2,205,200 The difference between the two models as of that year is less than a single percentage point

DISPLAY 1 Undergraduate Enrollment Demand in California, 1994 to 2005, as Forecast by the Commission and Compared to Undergraduate Enrollment as Forecast by the Demographic Research Unit of the Department of Finance



Source California Postsecondary Education Commission 1995 Baseline Undergraduate Enrollment Demand Projection, and Department of Finance 1994 Enrollment Projection Series.

Both the Commission and the Department of Finance foresee slower

growth through 2005 than previous forecasts The Commission's current projection of 455,000 additional students, which includes 14,000 graduate students, is substantially lower than previous forecasts, which called for 700,000 additional students by the year 2005 Several factors account for this reduction

- In the late 1980s, prior to California's most recent recession, freshman enrollments were on a dramatic upswing, and nontraditional students -- particularly those who had historically been underrepresented -- were pursuing higher education in greater numbers Since then, enrollment and participation rates at the California Community Colleges and the California State University have fallen, apparently because of the recession itself, increased student fees, adverse publicity about course-cutbacks and overcrowded classes, and in some cases, student uncertainty, if not cynicism, about the value of higher education
- In addition, the Demographic Research Unit has lowered its projection of the number of California high school graduates in 2005 from 335,768 to 310,183 because of updated 1990 Census figures that found fewer children enrolled in the primary grades than originally forecast
- Furthermore, the Commission anticipates that the burgeoning numbers of high school graduates who constitute "Tidal Wave II" -- the mini-baby boom of the late 1970s that is an echo of the post-World War II baby boom -- will be partially offset by a temporary reduction in California's 20-29 age-group

Principally for these reasons, the Commission's 1995 Baseline Projection now shows slow growth in enrollment demand over the next several years, and more rapid growth in demand by the year 2000 through 2005

The Commission bases its Baseline Projection for 2005 on five primary elements

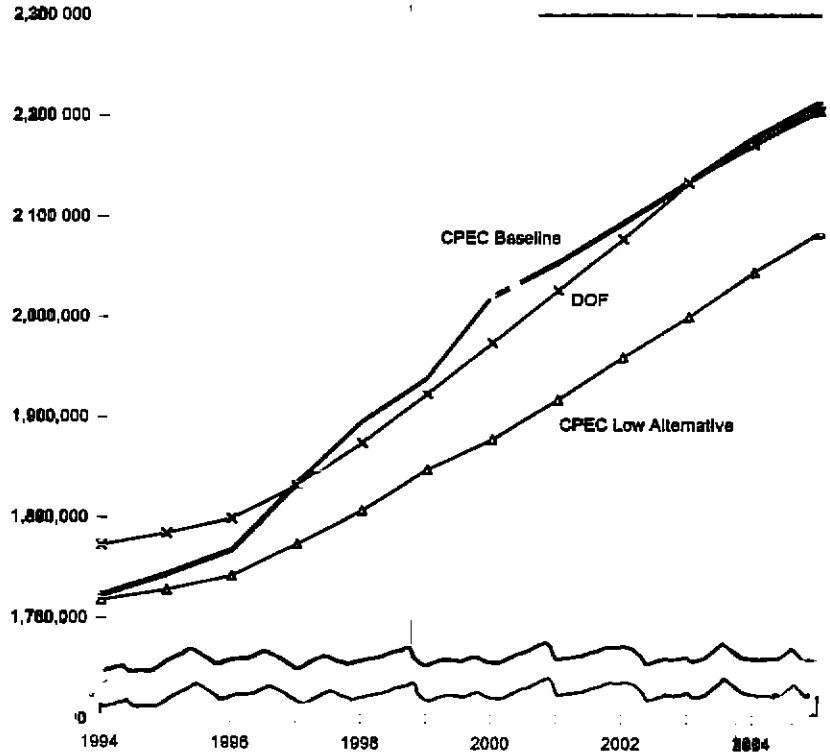
- The first is a 21-percent increase in the annual number of high school graduates between 1993 and 2005 calculated by the Demographic Research Unit -- a relatively reliable calculation because California's high school graduates of 2005 are already enrolled in the second and third grades of school
- Second, rather than merely extrapolating the behavior of today's high school graduates into the future, the Commission anticipates that undergraduate college-going rates by 2005 will have returned to pre-recession levels, primarily because the global economy of the twenty-first century will require the acquisition of more job skills and knowledge beyond the high school level Therefore, it assumes that the overall rate of recent public high school graduates who elect to enroll in public postsecondary institutions as freshmen will rise from 52 percent in 1993 to 58 percent in 2005
- Third, the Commission assumes modest increases in the undergraduate participation of historically underrepresented groups, primarily because of current improvements in their academic preparation, as evidenced by increases in the proportion taking high school courses needed for admission to the California

State University, the University of California, and other selective institutions, and by increases in their university eligibility rates

- Fourth, at the graduate-student level, the Commission's Baseline Projection uses enrollment projections developed by the Demographic Research Unit that are based on current enrollment levels, since graduate-student enrollments -- unlike those at the undergraduate level -- are determined or "managed" more by institutional policy than by student demography
- Finally, for projection purposes, the Commission does not assume increased enrollment of California students in independent institutions by means of increased State-financed student aid, although the Commission advocates this policy in its new report, *The Challenge of the Century* (1995)

Even if the Commission's assumptions of higher college-going rates and continued improvements in the academic preparation of historically underrepresented groups prove false, enrollment demand will climb -- but simply at a less steep rate than that anticipated by the Commission's Baseline Projection If college-going rates rise only halfway between their actual Fall 1993 levels and the Commission's Baseline Projection for 2005, enrollment demand will likely be the "Low Alternative" Projection that the Commission shows in Display 2

DISPLAY 2 Undergraduate Enrollment Demand in California, 1994 to 2005, as Forecast by the Commission Under Baseline and Low Alternative Assumptions, Compared to Undergraduate Enrollment as Forecast by the Demographic Research Unit



Source California Postsecondary Education Commission 1995 Baseline and Low Alternative Undergraduate Enrollment Demand Projections, and Department of Finance 1994 Enrollment Projection Series

Simply because of California's population growth, the State will lead all other states in postsecondary enrollment growth into the twenty-first century The latest estimate released by the National Center for Education Statistics of the federal Department of Education foresees enrollment in public higher education nationwide increasing by about 9 percent between Fall 1993 and Fall 2005 and topping 12 6 million that fall, with California's share of nationwide higher education enrollment expected to increase from 16 percent to about 18 percent

In terms of California's three public higher education systems, the Commission's Baseline Projection anticipates that enrollment demand at the 106 California Community Colleges will increase by 24 4 percent, or 337,770 additional students, for the

DISPLAY 3 Anticipated California Public College and University Enrollment Demand Between Fall 1994 and Fall 2005, Using the Commission's Baseline and Low Alternative Projections

Fall Term of Year	California Community Colleges	The California State University	University of California	Total
Baseline Projection				
1993	1,384,400	325,640	163,103	1,873,143
1994	1,337,085	323,208	164,769	1,825,062
1995	1,355,358	323,574	165,858	1,844,790
1996	1,374,562	327,542	167,243	1,869,347
1997	1,435,063	333,894	168,775	1,937,732
1998	1,488,052	340,146	170,311	1,998,509
1999	1,525,501	345,694	171,858	2,043,053
2000	1,597,317	354,244	175,375	2,126,936
2001	1,619,693	363,987	179,346	2,163,026
2002	1,646,366	374,717	183,475	2,204,558
2003	1,670,978	388,556	187,484	2,247,018
2004	1,700,088	400,021	191,556	2,291,665
2005	1,722,170	410,996	195,167	2,328,333
Number Change	+337,770	+85,356	+32,064	+455,190
Percent Change	+24 40%	+26 21%	+19 66%	+24 30%
Low Alternative Projection				
1993	1,384,400	325,640	163,103	1,873,143
1994	1,335,800	321,679	163,192	1,820,671
1995	1,347,297	320,616	162,774	1,830,687
1996	1,360,040	323,155	162,651	1,845,846
1997	1,389,863	326,672	162,675	1,879,210
1998	1,421,410	330,089	162,699	1,914,198
1999	1,457,024	333,506	166,210	1,956,740
2000	1,481,484	337,060	168,921	1,987,465
2001	1,511,040	345,802	172,362	2,029,204
2002	1,542,183	355,272	176,133	2,073,588
2003	1,570,973	365,574	179,805	2,116,352
2004	1,604,397	375,054	182,909	2,162,360
2005	1,633,986	383,867	185,325	2,203,178
Number Change	+249,586	+58,227	+22,222	+330,035
Percent Change	+18 03%	+17 88%	+13 62%	+17 62%

Source California Postsecondary Education Commission staff analysis

22-campus California State University by 26 2 percent, or 85,356 additional students, and for the nine-campus University of California by 19 7 percent or 32,064 students As shown in Display 3 at the left, the community colleges enrolled 1,384,400 students in Fall 1993 and are likely to find under the Commission's Baseline Forecast that 1,722,170 students will seek admission in Fall 2005 The State University enrolled 325,640 in 1993 and is likely to have enrollment demand of 410,996 by Fall 2005 And the University of California enrolled 163,103 in 1993, compared to likely enrollment demand of 195,167 in Fall 2005

Demographic determinants of demand

Changes in demand are due in part to changes in the size and composition of recent high school graduating classes and to changes in college-age populations The 1994 Projection Series, developed by the Demographic Research Unit and presented in Display 4 on the opposite page, indicates that public high school graduates will total 310,184 by the year 2005 This represents an overall increase of 21 3 percent, or 54,461 additional graduating seniors, since 1993 The annual rate of increase in high school graduates is expected to average 2 4 percent beginning in 1996, and then taper off to an average growth of 1 percent towards the end of the projection period Even if participation rates remain constant, first-time freshman demand is likely to be significantly larger based on the annual increases in the size of the graduating class

In terms of ethnic/racial group, Latino public high school graduates are expected to lead the increase with growth in numbers of nearly 50 percent Next, Asian, Native American, and African-American graduates are projected to in-

DISPLAY 4 1994 Department of Finance Projections of California Public High School Graduates by Ethnicity, in Numbers and Percent Change from 1993-94 to 2004-05

Academic Year	African American	Asian	Latino	Native American	White	Total
Numbers						
1993-94	18,770	38,020	76,922	2,138	119,873	255,723
1994-95	19,534	37,350	78,054	2,205	120,655	257,798
1995-96	19,881	37,758	79,112	2,189	119,089	258,029
1996-97	20,706	39,705	81,675	2,158	119,891	264,135
1997-98	20,958	42,749	87,765	2,402	122,727	276,601
1998-99	21,089	45,359	91,928	2,382	124,016	284,774
1999-00	21,295	47,693	95,968	2,404	122,288	289,648
2000-01	21,358	49,320	98,471	2,543	122,157	293,849
2001-02	21,826	50,556	102,022	2,547	120,773	297,724
2002-03	22,670	51,940	105,957	2,690	120,948	304,205
2003-04	23,224	51,775	110,025	2,798	118,974	306,796
2004-05	23,867	53,483	114,515	2,890	115,429	310,184
Total Change	+5,097	+15,463	+37,593	+752	-4,444	+54,461
Percent Change						
1994-95	4 07%	-1 76%	1 47%	3 13%	0 65%	0 81%
1995-96	1 78%	1 09%	1 36%	-0 73%	-1 30%	0 09%
1996-97	4.15%	5 16%	3 24%	-1 42%	0 67%	2 37%
1997-98	1 22%	7 67%	7 46%	11 31%	2 37%	4 72%
1998-99	0 63%	6 11%	4 74%	-0 83%	1 05%	2 95%
1999-00	0 98%	5 15%	4 39%	0 92%	-1 39%	1 71%
2000-01	0 30%	3 41%	2 61%	5 78%	-0 11%	1 45%
2001-02	2 19%	2 51%	3 61%	0 16%	-1 13%	1 32%
2002-03	3 87%	2 74%	3 86%	5 61%	0 14%	2 18%
2003-04	2 44%	-0 32%	3 84%	4 01%	-1 63%	0 85%
2004-05	2 77%	3 30%	4 08%	3 29%	-2 98%	1 10%
Total Change	+27 16%	+40 67%	+48 87%	+35 17%	-3 71%	+21 30%

Source 1994 Projection Series, Demographic Research Unit, Department of Finance

crease by 41 percent, 35 percent, and 28 percent, respectively Because of the relatively low fertility rate among White women of childbearing age, the Department of Finance calculates that the number of White high school graduates will actually decline by 3 7 percent Accordingly, the composition of the graduating class of 2005 will reflect a gain of nearly 11 percentage points for Asian, African-American, Latino, and Native American students combined Since participation rates are not uniform across racial-ethnic groups, though, demand is likely to be more restrained than would otherwise be expected than if each group had a similar rate Historically, college-going rates for Latino and African American students have been comparatively low, but they improved in the recent past and are expected to improve more over the projection period

Major shifts in California's primary college-age populations will also affect enrollment demand over the next 12 years

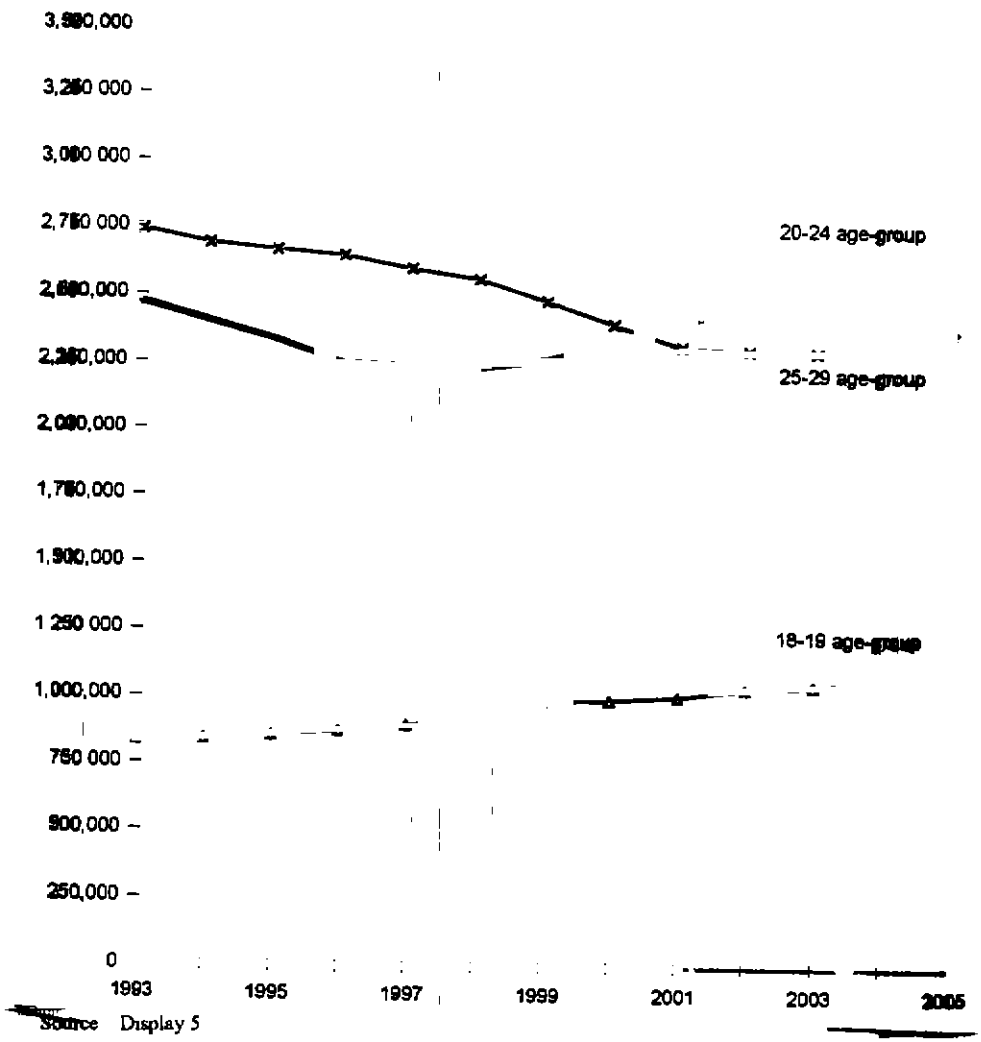
- The 20-24 age-group is projected to decrease from approximately 2 4 million in 1993 to 2 2 million in 1999 and then more than fully recover to 2 6 million by 2005 In the short run, however, it will drop by 200,000
- The 25-29 age-group may decrease from about 2 7 million in 1993 to 2 4 million in 2000, representing a loss of 300,000 persons As shown by Displays 5 and 6 on the next pages, these two age-groups represent a net loss of a half million persons by the year 2000

DISPLAY 5 Department of Finance Population Projections by Age Group, 1993-2005

Year	15-17	18-19	20-24	25-29	30-49	50-59	Total
Numbers							
1993	1,200,323	833,045	2,471,318	2,742,050	10,072,789	2,655,686	19,975,211
1994	1,234,338	840,385	2,401,820	2,692,332	10,357,255	2,764,500	20,290,630
1995	1,289,875	853,818	2,332,446	2,668,679	10,633,176	2,877,046	20,655,040
1996	1,353,859	873,295	2,247,771	2,649,245	10,893,394	2,995,749	21,013,313
1997	1,390,305	893,911	2,235,084	2,601,409	11,040,307	3,197,397	21,358,413
1998	1,424,238	936,724	2,232,005	2,562,863	11,168,321	3,393,640	21,717,791
1999	1,438,050	988,105	2,266,895	2,485,272	11,302,047	3,576,974	22,057,343
2000	1,481,575	993,658	2,327,469	2,402,078	11,422,048	3,766,338	22,393,166
2001	1,515,093	1,007,517	2,412,752	2,319,087	11,508,516	3,960,176	22,723,141
2002	1,547,295	1,037,158	2,471,800	2,306,045	11,569,061	4,135,847	23,067,206
2003	1,583,275	1,052,237	2,548,216	2,301,942	11,574,228	4,304,370	23,364,268
2004	1,618,901	1,083,826	2,613,590	2,337,573	11,541,155	4,485,508	23,680,553
2005	1,692,212	1,100,469	2,662,265	2,397,604	11,478,648	4,686,856	24,018,054
Total Change	+491,889	+267,424	+190,947	-344,446	+1,405,859	+2,031,170	+4,042,843
Percent Change							
1994	2 83%	0 88%	-2 81%	-1 81%	2 82%	4 09%	1 57%
1995	4.49%	1 59%	-2 88%	-0 87%	2.66%	4 07%	1 79%
1996	4 96%	2 28%	-3 63%	-0 72%	2 44%	4 12%	1 73%
1997	2 69%	2 36%	-0 56%	-1 80%	1 34%	6 73%	1 64%
1998	2 44%	4 78%	-0 13%	-1 48%	1 15%	6 13%	1 68%
1999	0 96%	5 48%	1 56%	-3 02%	1 19%	5 40%	1 56%
2000	3 02%	0 56%	2 67%	-3 34%	1 06%	5 29%	1 52%
2001	2 26%	1 39%	3 66%	-3 45%	0 75%	5 14%	1 47%
2002	2 12%	2 94%	2 44%	-0 56%	0 52%	4 43%	1 51%
2003	2 32%	1 45%	3 09%	-0 17%	0 04%	4 07%	1 28%
2004	2 25%	3 00%	2 56%	1 54%	-0 28%	4 20%	1 35%
2005	4 52%	1 53%	1 86%	2 56%	-0 54%	4 48%	1 42%
Total Change	40 97%	+32 10%	+7 72%	-12 56%	+13 95%	+76 48%	+20 23%

Source 1994 Projection Series, Demographic Research Unit, Department of Finance.

DISPLAY 6 Department of Finance Population Projections by Selected Age-Groups, 1993 to 2005



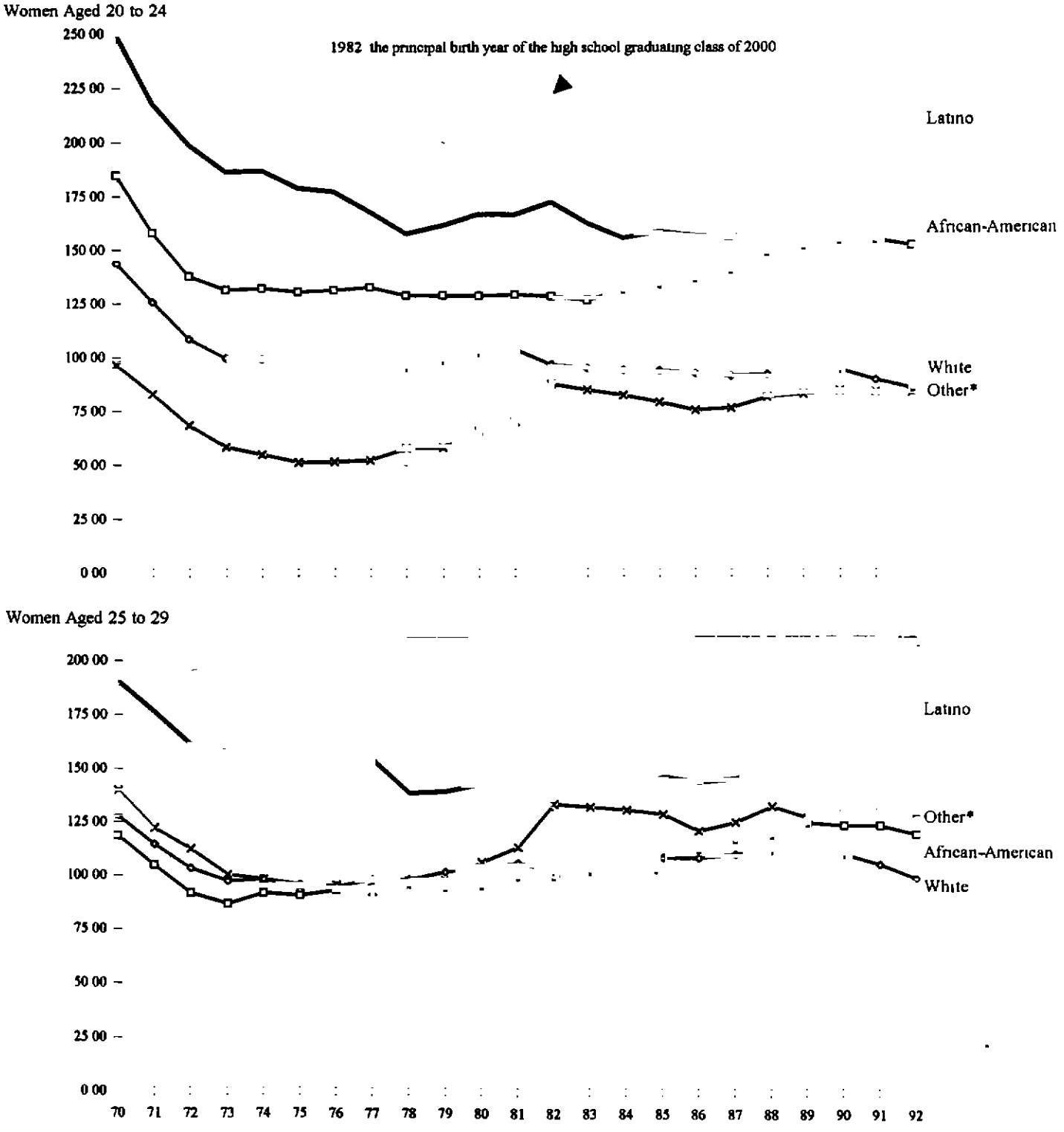
Source Display 5

The temporary reduction in size of these two age-cohorts is partially explained by the steep decline in birth rates that began in 1970 and continued for several years (Display 7, page 34) Display 8 on page 35 highlights the aging of California's population As can be seen, the 50-and-over age-group will gain 7 percentage points by 2005 and represent 20 percent of the State's population In contrast, the 20-to-29 age-group will lose 5 percentage points by then and represent 21 percent of the population -- only one percentage point more than the 50-and-over group

If college-going rates were to remain constant, this decrease in the number of persons aged 20 to 29 would probably affect the California Community Colleges and the California State University more than the University of California, for the reason that this age category represents about 45 percent of community college enrollment and over 50 percent of new students at the State University -- whereas only 35 percent of first-time freshmen at the University do not enter directly from high school

The decrease in the size of the 20-29 age-group will be partially offset by an increase in California's 30-49 age population from which older students come from This age-group is projected to increase from about 10 million in 1993 to just under 11 5 million by 2005 Presently, this cohort represents about 30 percent of community college enrollment and about a third of the new students to the State University Display 9 on page 35 shows the distribution of public higher education enrollment by age-group for Fall 1993

DISPLAY 7 Number of Births Per Thousand California Women Aged 20 to 24 and 25 to 29 Between 1970 and 1992, by Major Racial/Ethnic Group

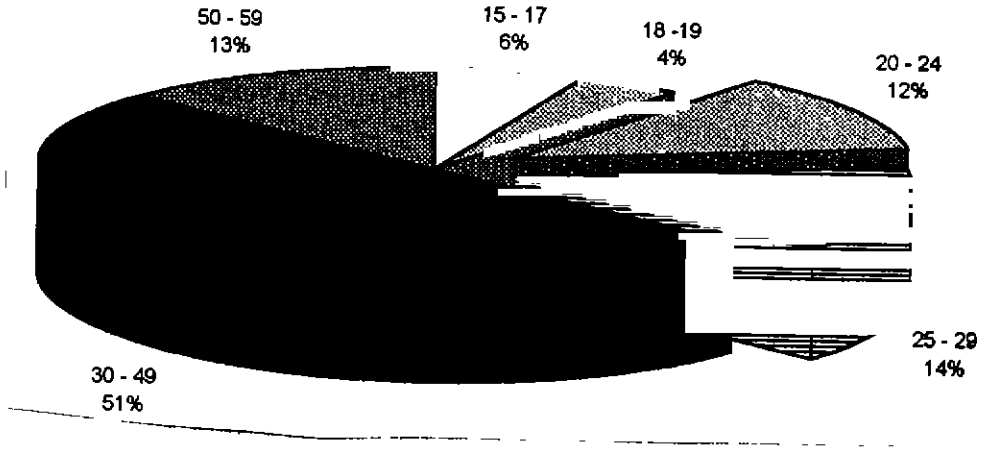


* "Other" includes Asian and Native American Californians

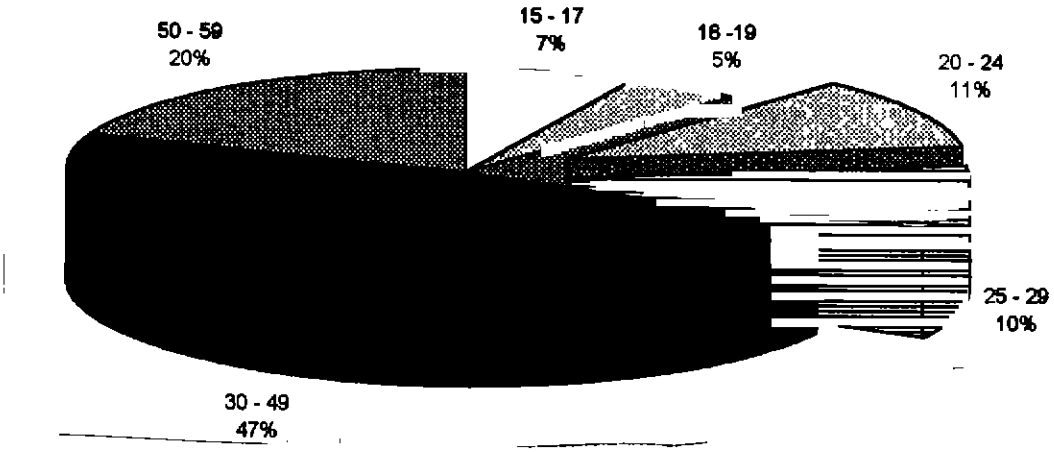
Source 1994 Projection Series, Demographic Research Unit, Department of Finance

DISPLAY 8 California's Population by Age Group, Estimated July 1993 and Projected July 2005

July 1993

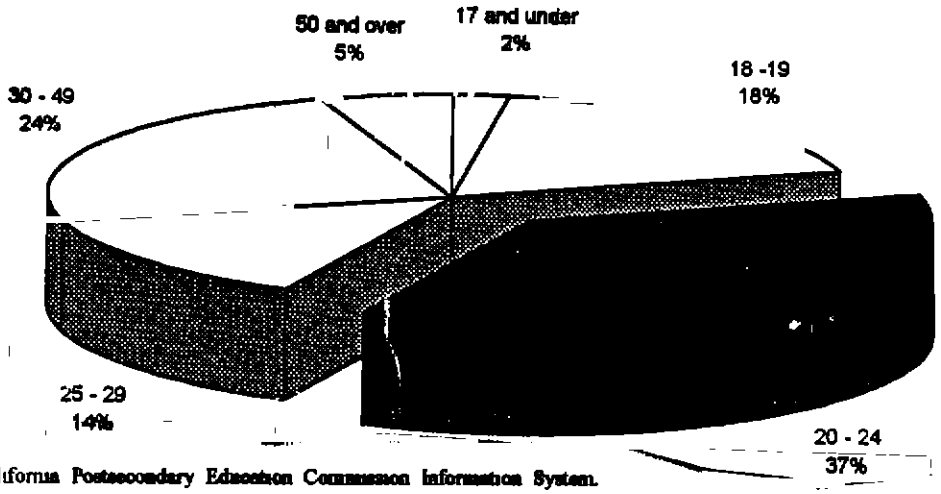


July 2005



Source 1994 Projection Series, Demographic Research Unit, Department of Finance

DISPLAY 9 California Public College and University Enrollment by Age Group, 1993



Source California Postsecondary Education Commission Information System.

Cognitive determinants of demand

A number of school reform initiatives have been enacted over the past decade, both nationally and in California, in order to improve college preparedness, enhance educational access, and provide a meaningful and challenging educational experience for K-12 students from all backgrounds Many educational observers point to the 1983 publication of *A Nation At Risk* as the catalyst for many of these current efforts, including the creation of the National Education Goals Panel, which in 1989 proposed six goals to be achieved by 2000 to help build "a nation of learners " In California, school reform has focused on student understanding, student engagement, and student outcomes According to California's Intersegmental Coordinating Council (1990), instructional strategies to improve college readiness include emphasis on critical thinking and conceptual understanding, problem-solving based on real-life problems, meaning-centered rather than memorization-oriented learning opportunities, active learning and activity-based instruction, contextualized learning that makes connections to student's experiences, collaborative learning in groups, and interdisciplinary learning Although these initiatives are considered to be long-term efforts, intended improvements in student performance and preparation are beginning to be realized These indicators of college preparation include (1) the proportion of high school graduates who complete the preparatory requirements for the California State University and the University of California (generally referred to as the "A-F requirements") and (2) the proportion of high school students enrolled in advanced mathematics and science courses Improvements in these cognitive areas are important because they antedate increases in freshman eligibility and subsequent growth in postsecondary enrollment demand

Increases in A-F completion rates

Between 1985 and 1993, the proportion of high school graduates who completed a college preparatory curriculum consistent with the University of California's A-F subject requirements rose from 26 percent to 33 percent Moreover, all racial-ethnic groups posted gains of at least 5 percentage points Asian and African-American students led the way with gains of 12 and 10 percentage points, respectively Admission to the California State University requires completion of 12 of the 15 A-F college preparatory courses The 1992 Eligibility Study of Public High School Graduates revealed that 42 percent of the 1990 graduates had completed this level of college preparation This compares favorably to the 1986 Eligibility Study, which indicated that about 31 percent of the 1986 graduates had completed 12 or more of the A-F requirements

Increases in mathematics and science enrollments

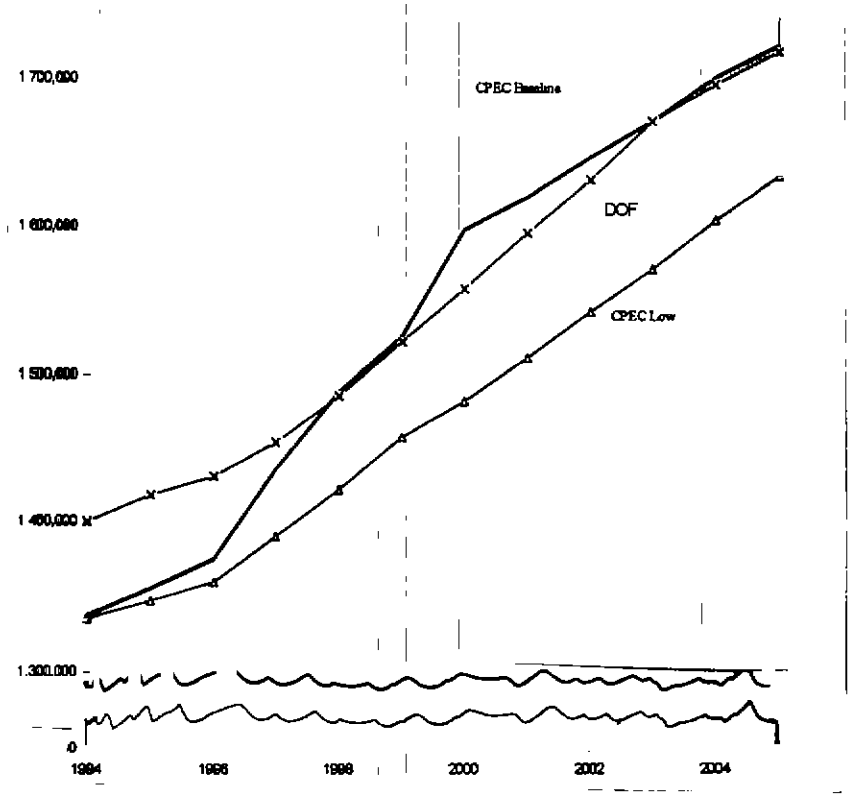
In addition to the overall upswing in A-F enrollments, there have also been dramatic increases in the number of students enrolled in math-and-science-based courses Between 1985 and 1993, the number of students enrolled in these subject areas rose from an average of 81,490 to 117,716, representing an increase of 45 percent or 36,226 students During the same period, public high school eleventh and twelfth grade enrollments increased by about 7 percent, so a substantially higher proportion of students are now pursing advanced math and science courses Perhaps even more striking and encouraging is the upswing in these enrollments

across racial-ethnic groups By 1993, the number of Asian, African American, Latino, and Native American students enrolled in these courses had each increased by more than 50 percent

Projected enrollment demand at the California Community Colleges

The California Community Colleges form the largest postsecondary educational system in the world and currently serve approximately 1 4 million students through both vocational and academic program offerings As shown in Display 10 below and Display 11 on page 38, the Commission's Baseline Projection forecasts that enrollment demand at the community colleges will climb by 24 percent to 1,722,170 in Fall 2005, indicating a need to accommodate an additional 337,770 students over 1993 The Department of Finance estimates that by 2005, community college enrollment will reach almost that same amount -- 1,717,800, or only 4,370 less Under the Commission's Low Alternative Projection, shown in Displays 10 and 12 -- the latter on page 39 -- demand would climb by 18 percent to 1,633,986

DISPLAY 10 Enrollment Demand at the California Community Colleges, 1994 to 2005, as Forecast by the Commission Under Baseline and Low Alternative Assumptions, Compared to Community College Enrollment as Forecast by the Demographic Research Unit of the Department of Finance



Source California Postsecondary Education Commission 1995 Baseline and Low Alternative Enrollment Demand Projections, and Department of Finance 1994 Enrollment Projection Series

Staff in the Chancellor's Office of the Community Colleges suspect that the recent decline in community college enrollment may have been caused more by legislative action than by California's recent recession Between 1989 and 1992, the community colleges added 66,606 students before declining by 9 percent in Fall 1993 That drop coincided with the implementation of Senate Bill 766 (1992), which raised the community college enrollment fee for students with a baccalaureate degree from $6 per unit to $50 per unit, increased fees for non-baccalaureate students from $6 per unit to $10 per unit, and removed the 10-unit limit on courses for which students would be charged Subsequent legislative action in 1993 raised the enrollment fee for students without a baccalaureate degree from $10 to $13 per unit

The Chancellor's Office reports that the Fall 1993 drop in enrollment included a 41 percent decline in the enrollment of students with a baccalaureate degree and reversed a

DISPLAY 11 Anticipated California Community College Full-Term Enrollment Demand Between Fall 1994 and Fall 2005, Using the Commission's Baseline Projection, by Racial/ Ethnic Group

Fall of Year	African American	Asian	Latino	Native American	White	Nonresident Alien	Total
Numbers							
1994	104,524	189,577	269,336	15,625	706,597	51,426	1,337,085
1995	105,158	192,893	274,682	15,972	714,524	52,129	1,355,358
1996	105,816	194,536	277,068	16,213	728,061	52,868	1,374,562
1997	113,886	205,395	298,031	16,380	746,177	55,194	1,435,063
1998	117,809	219,243	309,131	16,672	767,965	57,232	1,488,052
1999	120,942	225,511	316,818	17,019	786,538	58,673	1,525,501
2000	123,142	228,945	325,352	18,014	840,429	61,435	1,597,317
2001	124,689	232,693	333,812	19,058	847,146	62,295	1,619,693
2002	126,671	236,813	343,028	20,026	856,506	63,322	1,646,366
2003	130,145	240,662	351,980	20,962	862,961	64,268	1,670,978
2004	134,148	244,689	362,851	21,667	871,345	65,388	1,700,088
2005	136,034	247,691	372,954	22,144	877,110	66,237	1,722,170
Percent Change							
1995	0 60%	1 74%	1 98%	2 22%	1 12%	1 36%	1 36%
1996	0 62%	0 85%	0 86%	1 50%	1 89%	1 41%	1 41%
1997	7 62%	5 58%	7 56%	1 03%	2 48%	4 39%	4 40%
1998	3 44%	6 74%	3 72%	1 78%	2 91%	3 69%	3 69%
1999	2 65%	2 85%	2 48%	2 08%	2 41%	2 51%	2 51%
2000	1 81%	1 52%	2 69%	5 84%	6 85%	4 70%	4 70%
2001	1 25%	1 63%	2 60%	5 79%	0 79%	1 39%	1 40%
2002	1 58%	1 77%	2 76%	5 07%	1 10%	1 64%	1 64%
2003	2 74%	1 62%	2 60%	4 67%	0 75%	1 49%	1 49%
2004	3 07%	1 67%	3 08%	3 36%	0 97%	1 74%	1 74%
2005	1 40%	1 22%	2 78%	2 20%	0 66%	1 29%	1 29%

Note "Full-term enrollment" means the sum of all students enrolled anytime during the term for at least 0 5 units

Source California Postsecondary Education Commission 1995 Baseline Projection of Enrollment Demand

DISPLAY 12 Anticipated California Community College Full-Term Enrollment Demand Between Fall 1994 and Fall 2005, Using the Commission's Low Alternative Projection, by Racial/Ethnic Group

Fall of Year	African American	Asian	Latino	Native American	White	Nonresident Alien	Total
Numbers							
1994	104,524	189,577	269,336	15,625	706,597	50,141	1,335,800
1995	105,153	192,899	274,694	15,975	708,004	50,572	1,347,297
1996	105,811	194,542	277,081	16,219	715,336	51,051	1,360,040
1997	109,418	197,580	283,721	16,380	730,594	52,170	1,389,863
1998	112,159	201,281	290,225	16,676	747,715	53,354	1,421,410
1999	114,710	206,259	299,177	17,064	765,250	54,564	1,457,024
2000	116,329	210,313	306,768	17,377	775,343	55,354	1,481,484
2001	118,232	214,699	316,286	18,749	786,738	56,336	1,511,040
2002	120,623	219,458	326,525	19,281	798,920	57,376	1,542,183
2003	123,080	223,997	336,554	19,781	809,233	58,328	1,570,973
2004	125,992	228,727	348,564	20,292	821,369	59,453	1,604,397
2005	128,602	233,001	359,976	20,739	831,234	60,434	1,633,986
Percent Change							
1995	0 60%	1 75%	1 99%	2 24%	0 20%	0 86%	0 86%
1996	0 63%	0 85%	0 87%	1 53%	1 04%	0 95%	0 94%
1997	3 41%	1 56%	2 40%	0 99%	2 13%	2 19%	2 19%
1998	2 51%	1 87%	2 29%	1 81%	2 34%	2 27%	2 26%
1999	2 27%	2 47%	3 08%	2 33%	2 35%	2 27%	2 50%
2000	1 41%	1 97%	2 54%	1 83%	1 32%	1 45%	1 67%
2001	1 64%	2 09%	3 10%	7 90%	1 47%	1 77%	1 99%
2002	2 02%	2 22%	3 24%	2 84%	1 55%	1 85%	2 06%
2003	2 04%	2 07%	3 07%	2 59%	1 29%	1 66%	1 86%
2004	2 37%	2 11%	3 57%	2 58%	1 50%	1 93%	2 12%
2005	2 07%	1 87%	3 27%	2 20%	1 20%	1 65%	1 84%

Note "Full-term enrollment" means the sum of all students enrolled anytime during the term for at least 0 5 units

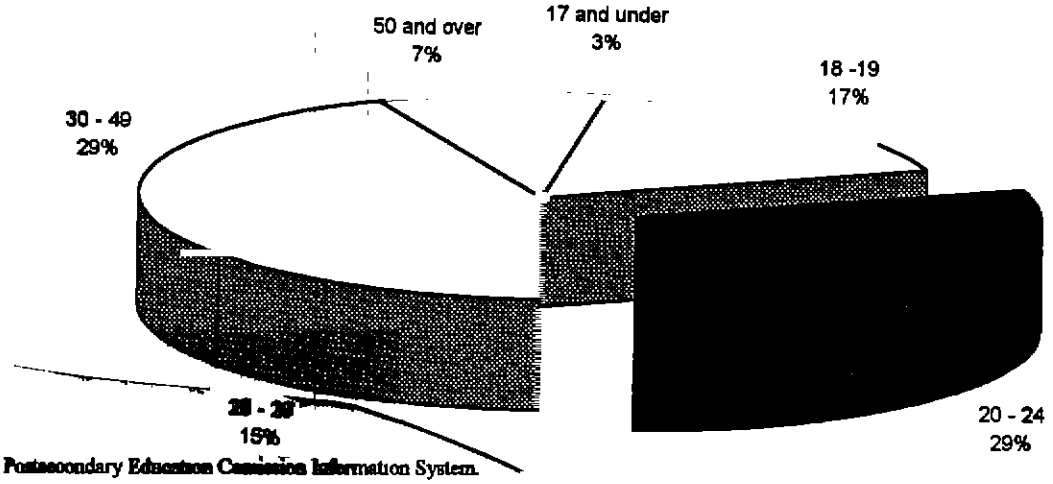
Source California Postsecondary Education Commission 1995 Low Alternative Projection of Enrollment Demand.

trend of steady increases in the number of students enrolling full time The Chancellor's Office uses a multiple regression model for estimating statewide and district enrollment demand. One of the factors it employs in that equation is the real cost of student expenses, including fees, books and supplies, transportation, and child care The coefficient for this factor implies that each dollar's increase in the average yearly cost of attendance decreases student demand for the community colleges by 1,634 students

The California Postsecondary Education Commission is concerned about the extent to which changes in community college enrollments are a function of changes in statewide fee levels, and in adopting its recommendations this past February for a long-term fee policy at the community colleges, it stated that "every effort should be made to ensure that increases in community college student charges are gradual, moderate, and predictable so that students and their families, if applicable, can prepare for the costs of community college attendance" (1995, p 3) If future changes are not gradual, moderate, and predictable, the Commission fears that community college enrollments will follow its Low Alternative Projection rather than its Baseline Projection

The Commission's Baseline Projection for the community colleges anticipates a full recovery of students in age-groups under 30 and a partial recovery of students with a bachelor's degree -- a number of whom are in over-30 age groups It also anticipates that the proportion of recent high school graduates who enroll in a community college as first-time freshmen will increase from 37 percent to 38 percent Over the next several years, community college enrollment levels may be particularly affected by the short-term reduction in California's 20-29 age-group Presently this age cohort, as shown in Display 13 below, represents about 44 percent of community college enrollment Under its Baseline Projection, the Commission anticipates that this group will constitute a slightly larger proportion of community college students in 2000 than now, as shown by Display 14 on the opposite page

DISPLAY 13 California Community College Enrollment by Age Group, Fall 1993



Source California Postsecondary Education Commission Information System.

DISPLAY 14 *Anticipated Age-Group Representation in California Community College Enrollment Demand, Fall 1994 and Fall 2005, Using the Commission's Baseline Projection, by Racial/Ethnic Group and Excluding Nonresident Aliens*

Racial/Ethnic Group	Year	17 and Under	18 and 19	20 to 24	25 to 29	30 to 49	50 to 59
African American Students	1994	2 5%	24 0%	16 0%	9 0%	5 0%	2 5%
	2005	2 5%	28 0%	18 0%	10 0%	5 5%	4 0%
Asian Students	1994	4 7%	36 7%	28 0%	10 8%	4 0%	3 0%
	2005	4 7%	38 0%	29 0%	12 0%	5 0%	4 0%
Latino Students	1994	1 5%	19 0%	10 0%	4 0%	2 6%	1 7%
	2005	1 5%	19 0%	10 0%	5 0%	3 0%	2 0%
Native American Students	1994	4 6%	40 0%	26 0%	14 0%	7 0%	5 5%
	2005	4 6%	43 0%	29 0%	17 0%	9 0%	7 0%
White Students	1994	3 4%	31 0%	17 0%	7 0%	4 0%	4 0%
	2005	3 4%	34 0%	19 0%	10 0%	4 5%	4 5%
Total	1994	2 8%	27 0%	15 5%	6 4%	3 7%	3 4%
	2005	2 8%	28 0%	16 7%	8 3%	4 1%	3 9%

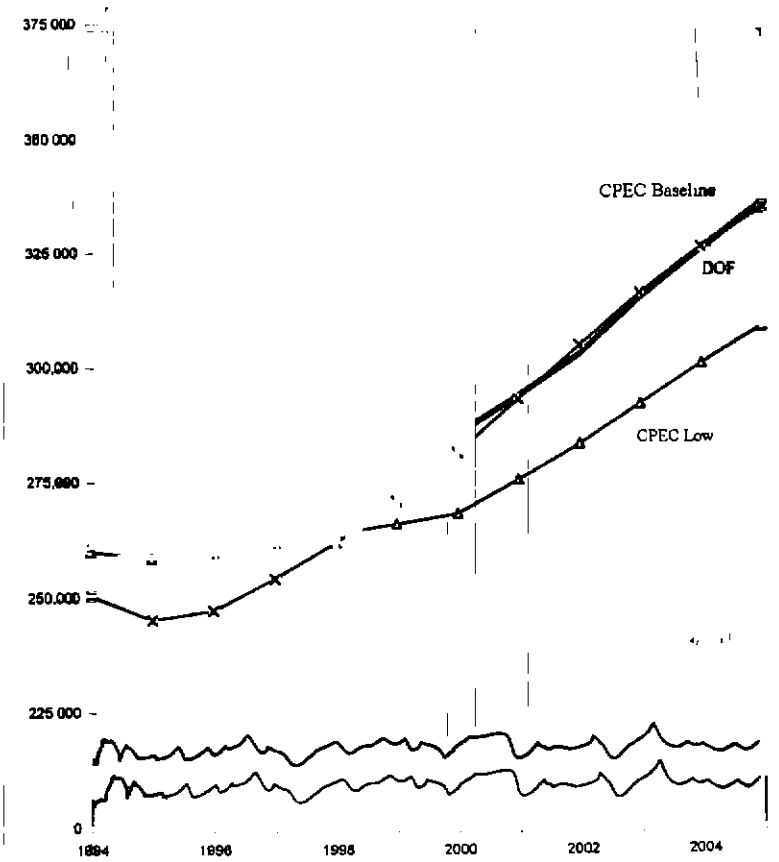
Source California Postsecondary Education Commission 1995 Baseline Projection of Enrollment Demand

Projected enrollment demand at the California State University

The California State University consists of 22 regional campuses that served 325,640 students in Fall 1993 through program offerings in over 200 academic disciplines and fields Its officials are beginning to express optimism regarding the health of the system after several consecutive years of budget reductions and a loss of nearly 50,000 students since 1989 The Fall 1994 term marked the first time since 1989 in which the number of entering freshmen was larger than the previous freshman class The Commission's Baseline Projection for enrollment demand at the State University anticipates that demand will increase by 26 2 percent to 410,996 students by Fall 2005, indicating a need to accommodate an additional 85,356 students since Fall 1993 The Baseline Projection foresees undergraduate enrollment continuing to decline marginally through this year and then grow to 335,396 by Fall 2005, for a net increase of 27 7 percent or 72,903 additional undergraduates Under the Commission's Low Alternative Projection, total student demand would increase by only 18 0 percent

The enrollment projections for the State University developed in 1994 by the Demographic Research Unit of the Department of Finance show a trend of undergraduate attendance comparable to that of the Commission's Baseline Projection after the year 2000, with enrollment growing by about 3 percent annually thereafter to 334,300 in 2005 but dipping to 245,300 this year The similarity in these several projections appears graphically in Display 15 on the next page, and the year-by-year numbers in the Commission's two projections, broken down by ra-

DISPLAY 15 Enrollment Demand at the California State University, 1994 to 2005, as Forecast by the Commission Under Baseline and Low Alternative Assumptions, Compared to State University Enrollment as Forecast by the Demographic Research Unit of the Department of Finance



Source California Postsecondary Education Commission 1995 Baseline and Low Alternative Enrollment Demand Projections, and Department of Finance 1994 Enrollment Projection Series

cial/ethnic group, appear in Displays 16 and 17 on the opposite page and page 44

The short-term decline in undergraduate demand at the State University, forecast by the Demographic Research Unit model and the Commission's Low Alternative projection, is associated with several recent developments First, freshman enrollment of regularly admissible public-high school graduates at the State University fell from 10 3 percent in 1989 to 7 3 percent in 1993 As a result, by that fall about 9,000 fewer first-time freshmen were enrolled in the State University than in 1989 This decline in numbers was particularly pronounced for Asian students -- California's racial/ethnic group with the historically highest college-going rate The participation rate of Asian regularly admissible high school graduates to the State University fell from 19 4 percent in 1989 to 12 5 percent by 1993 Although freshman participation rates are forecast to gradually return to pre-recession averages, in the short-run, there are likely to be comparatively smaller numbers of entering freshmen to the State University than in years prior to 1989 In fact, the total number of first-time freshmen at the State University is not expected to match the 1989 class total until Fall 2000

The number of community college transfers to the State University has been relatively stable over the past three years However, a disproportionate 16-percent drop in White community college transfers between 1990 and 1993 was offset by above-average increases in Latino and Asian transfers Since the short-term reduction in the State's 20-29 population is expected to affect all racial/ethnic groups, there may be comparatively fewer students age 20 to 29 enrolled in the community colleges, and conversely, fewer students of this age-category who subsequently transfer to the State University Equally significant, the overall loss of 40,000 White students from the State University may not be fully recovered until several years beyond the turn of the century This is because the number of White public high school graduates is forecast to decline over the next 10 years, and the recovery

DISPLAY 16 *Anticipated California State University Enrollment Demand Between Fall 1993 and Fall 2005, Using the Commission's Baseline Projection, by Racial/Ethnic Group*

	Undergraduate Students[1]								
Fall of Year	African American	Asian	Latino	Native American	White/ Other	Out-of-State and Nonresident Alien	Total Undergraduates	Graduate Students[2]	All Students
Numbers									
1993	16,142	47,767	41,856	2,602	130,830	23,296	262,493	63,147	325,640
1994	16,232	50,415	44,555	2,610	124,385	23,311	261,508	61,700	323,208
1995	16,322	53,063	47,254	2,618	118,891	23,326	261,474	62,100	323,574
1996	16,412	55,711	49,953	2,624	116,001	23,341	264,042	63,500	327,542
1997	16,472	58,359	52,652	2,632	115,423	23,356	268,894	65,000	333,894
1998	16,532	61,007	55,351	2,640	114,845	23,371	273,746	66,400	340,146
1999	16,592	63,655	58,050	2,648	113,563	23,386	277,894	67,800	345,694
2000	16,652	66,304	60,747	2,660	115,281	23,400	285,044	69,200	354,244
2001	16,772	69,883	62,372	2,746	117,600	23,914	293,287	70,700	363,987
2002	17,369	73,629	64,021	2,828	120,022	24,448	302,317	72,400	374,717
2003	18,007	77,346	65,769	2,973	125,043	25,318	314,456	74,100	388,556
2004	18,618	80,701	67,835	3,236	129,088	25,743	325,221	74,800	400,021
2005	19,171	84,113	69,874	3,272	132,524	26,442	335,396	75,600	410,996
Percent Change									
1994	0 55%	5 54%	6 44%	0 30%	-4 92%	0 06%	-0 37%	-2 29%	-0 74%
1995	0 55%	5 25%	6 05%	0 30%	-4 41%	0 06%	-0 01%	0 64%	0 11%
1996	0 55%	4 99%	5 71%	0 22%	-2 43%	0 06%	0 98%	2 25%	1 22%
1997	0 36%	4 75%	5 40%	0 30%	-0 49%	0 06%	1 83%	2 36%	1 93%
1998	0 36%	4 53%	5 12%	0 30%	-0 50%	0 06%	1 80%	2 15%	1 87%
1999	0 36%	4 34%	4 87%	0 30%	-1 11%	0 06%	1 51%	2 10%	1 63%
2000	0 36%	4 16%	4 64%	0 45%	1 51%	0 05%	2 57%	2 06%	2 47%
2001	0 72%	5 39%	2 67%	3 23%	2 01%	2 19%	2 89%	2 16%	2 75%
2002	3 55%	5 36%	2 64%	2 98%	2 05%	2 23%	3 07%	2 40%	2 94%
2003	3 67%	5 04%	2 73%	5 12%	4 18%	3 55%	4 01%	2 34%	3 69%
2004	3 39%	4 33%	3 14%	8 84%	3 23%	1 67%	3 42%	0 94%	2 95%
2005	2 97%	4 22%	3 00%	1 11%	2 66%	2 71%	3 12%	1 06%	2 74%
Total Change	18 76%	76 09%	66 93%	25 74%	1 29%	13 50%	27 77%	19 72%	26 21%

1 Baseline Undergraduate Enrollment Demand Projections developed by the California Postsecondary Education Commission.

2 Graduate Enrollment Projections developed by the Demographic Research Unit, Department of Finance

Source California Postsecondary Education Commission and Department of Finance

DISPLAY 17 Anticipated California State University Enrollment Demand Between Fall 1993 and Fall 2005, Using the Commission's Low Alternative Projection, by Racial/Ethnic Group

Fall of Year	African American	Asian	Latino	Native American	White/ Other	Out-of-State and Nonresident Alien	Total Undergraduates	Graduate Students	All Students
	Undergraduate Students								
Numbers									
1993	16,142	47,767	41,856	2,602	130,830	23,296	262,493	63,147	325,640
1994	15,984	50,231	43,857	2,610	124,385	22,912	259,979	61,700	321,679
1995	15,826	52,695	45,858	2,618	118,891	22,628	258,516	62,100	320,616
1996	15,668	55,159	47,859	2,624	116,001	22,344	259,655	63,500	323,155
1997	15,510	57,623	49,860	2,632	113,987	22,060	261,672	65,000	326,672
1998	15,352	60,087	51,861	2,640	111,973	21,776	263,689	66,400	330,089
1999	15,194	62,551	53,862	2,648	109,959	21,492	265,706	67,800	333,506
2000	15,033	65,017	55,922	2,660	107,943	21,285	267,860	69,200	337,060
2001	15,558	67,724	58,231	2,746	108,951	21,892	275,102	70,700	345,802
2002	16,079	70,541	60,672	2,828	110,241	22,511	282,872	72,400	355,272
2003	16,680	73,302	63,235	2,973	112,125	23,159	291,474	74,100	365,574
2004	17,293	75,743	66,093	3,236	114,082	23,807	300,254	74,800	375,054
2005	17,880	78,208	68,953	3,272	115,498	24,456	308,267	75,600	383,867
Percent Change									
1994	-0 97%	5 15%	4 78%	0 30%	-4 92%	-1 64%	-0 95%	-2 29%	-1 21%
1995	-0 98%	4 90%	4 56%	0 30%	-4 41%	-1 23%	-0 56%	0 64%	-0 33%
1996	-0 99%	4 67%	4 36%	0 22%	-2 43%	-1 25%	0 44%	2 25%	0 79%
1997	-1 00%	4 46%	4 18%	0 30%	-1 73%	-1 27%	0 77%	2 36%	1 08%
1998	-1 01%	4 27%	4 01%	0 30%	-1 76%	-1 28%	0 77%	2 15%	1 04%
1999	-1 02%	4 10%	3 85%	0 30%	-1 79%	-1 30%	0 76%	2 10%	1 03%
2000	-1 05%	3 94%	3 82%	0 45%	-1 83%	-0 96%	0 81%	2 06%	1 06%
2001	3 49%	4 16%	4 12%	3 23%	0 93%	2 85%	2 70%	2 16%	2 59%
2002	3 34%	4 15%	4 19%	2 98%	1 18%	2 82%	2 82%	2 40%	2 73%
2003	3 73%	3 91%	4 22%	5 12%	1 70%	2 87%	3 04%	2 34%	2 89%
2004	3 67%	3 33%	4 51%	8 84%	1 74%	2 79%	3 01%	0 94%	2 59%
2005	3 39%	3 25%	4 32%	1 11%	1 24%	2 72%	2 66%	1 06%	2 34%
Total Change	10 76%	63 72%	64 73%	25 74%	-11 71%	4 97%	17 43%	19 72%	17 88%

1 Baseline Undergraduate Enrollment Demand Projections developed by the California Postsecondary Education Commission

2 Graduate Enrollment Projections developed by the Demographic Research Unit, Department of Finance

Source California Postsecondary Education Commission and Department of Finance

from a loss of 258,000 White persons in the 20-29 age-group is not projected to begin until 1999

New freshmen

The Commission's 1990 Eligibility Study indicated that about 35 percent of the 1990 public high school graduates were eligible to attend the State University As shown in Display 18, the 1990 estimates reflect substantial gains in eligibility since 1983, ranging from 4 0 to 11 5 percentage points This is particularly noteworthy because the State University has been phasing in tougher admission standards since 1985 It is admittedly problematic to estimate accurately the future annual growth in eligibility based on empirical data that are collected only every five years or so Nonetheless, if eligibility rates increase over the next five years at rates similar to the annualized rates calculated between 1986 and 1990, then by year 2000, about 43 percent of California's graduating public high school seniors will be eligible to attend the State University -- 10 percentage points above its current Master Plan ceiling of 33 3 percent

DISPLAY 18 Percent of Public High School Graduates Eligible to Attend the California State University in 1983, 1986, and 1990, by Racial/Ethnic Group

	1983	1986	1990
Overall	29 6%	27 5%	34 6%
African American	9 1	10 8	18 6
Asian	49 0	50 0	61 5
Latino	15 3	13 3	17 3
White	33 5	31 6	38 2

Source CPEC 1992 Eligibility study

The Commission's Baseline Projection of first-time freshmen presented in Display 19 on the next page indicates that demand at the State University will increase by 64 percent Under the Low Alternative, shown in Display 20 on page 47, The Commission anticipates that freshman demand would increase by 45 percent These projections are not based, necessarily, on any specific rate of increase in eligibility Instead, most of the growth in new freshmen to the State University is expected to result from the annual increases in the size of the high school graduating class, and from the return of participation rates to pre-recession averages Display 21 on page 48 provides the specific assumptions and participation rates used to forecast the demand of regularly admissible students Both sets of projections hold rates for "special action" admissions constant at the observed 1993 levels

New undergraduate transfer students

Community college transfers account for about 87 percent of the new undergraduate transfers to the State University The remaining 13 percent include students from other California colleges and universities (4 percent), students from out of state (7 percent), and nonresident aliens (2 percent) Although the number of community college transfers to the State University has been relatively stable over the past three years, it is likely that the next five years may include periods of small declines One important consideration is the 143,000 decline in community college enrollment that occurred between 1992 and 1994 Since a three-year lag exists between the time of initial enrollment in community colleges and subsequent transfer to a State University campus, the decline in community college enrollment may not effect the number of transfers to the State University until several years

DISPLAY 19 *Anticipated Enrollment Demand of New Students to the California State University as First-Time Freshmen Between 1994-95 and 2005-06, Using the Commission's Baseline Projection, by Racial/Ethnic and Other Group*

Year	African American	Asian	Latino	Native American	White/ Other	Out-of-State	Foreign Students	Total
Regular Admits								
1994-95	1,123	5,275	3,846	279	11,160	1,258	833	23,773
1995-96	1,275	5,427	4,347	288	11,525	1,326	878	25,066
1996-97	1,406	5,733	4,855	286	11,664	1,389	919	26,252
1997-98	1,577	6,289	5,477	283	12,032	1,488	985	28,131
1998-99	1,710	7,051	6,385	315	12,614	1,628	1,078	30,781
1999-00	1,836	7,779	7,211	313	13,047	1,751	1,159	33,096
2000-01	1,854	8,491	7,527	317	13,161	1,818	1,204	34,372
2001-02	1,859	9,104	7,724	336	13,443	1,883	1,247	35,596
2002-03	1,900	9,663	8,002	337	13,583	1,942	1,286	36,713
2003-04	1,973	10,268	8,311	356	13,895	2,019	1,336	38,158
2004-05	2,022	10,575	8,630	371	13,956	2,062	1,365	38,981
2005-06	2,078	11,280	8,982	384	13,820	2,120	1,403	40,067
Special Action Admits								
1994-95	901	532	1,769	45	479	0	0	3,726
1995-96	938	523	1,795	46	483	0	0	3,785
1996-97	954	529	1,820	46	476	0	0	3,825
1997-98	994	556	1,879	45	480	0	0	3,954
1998-99	1,006	598	2,019	50	491	0	0	4,164
1999-00	1,012	635	2,114	50	496	0	0	4,307
2000-01	1,022	668	2,207	50	489	0	0	4,436
2001-02	1,025	690	2,265	53	489	0	0	4,522
2002-03	1,048	708	2,347	53	483	0	0	4,639
2003-04	1,088	727	2,437	56	484	0	0	4,792
2004-05	1,115	725	2,531	59	476	0	0	4,906
2005-06	1,146	749	2,634	61	462	0	0	5,052

Source California Postsecondary Education Commission 1995 Baseline Enrollment Demand Projection.

DISPLAY 20 Anticipated Enrollment Demand of New Students to the California State University as First-Time Freshmen Between 1994-95 and 2005-06, Using the Commission's Low Alternative Projection, by Racial/Ethnic and Other Group

Year	African American	Asian	Latino	Native American	White/ Other	Out-of-State	Foreign Students	Total
Regular Admits								
1994-95	1,123	5,275	3,846	279	11,160	1,258	833	23,773
1995-96	1,192	5,294	4,035	288	11,377	1,287	852	24,325
1996-97	1,237	5,465	4,225	286	11,372	1,310	867	24,762
1997-98	1,314	5,866	4,500	283	11,592	1,366	905	25,826
1998-99	1,355	6,444	4,985	315	12,014	1,457	964	27,534
1999-00	1,388	6,973	5,378	313	12,288	1,528	1,011	28,879
2000-01	1,427	7,475	5,777	317	12,263	1,581	1,047	29,887
2001-02	1,457	7,878	6,095	336	12,396	1,633	1,081	30,877
2002-03	1,515	8,227	6,489	337	12,400	1,680	1,112	31,761
2003-04	1,601	8,608	6,919	356	12,563	1,743	1,154	32,944
2004-05	1,668	8,735	7,372	371	12,501	1,778	1,177	33,601
2005-06	1,746	9,202	7,867	384	12,282	1,826	1,209	34,516
Special Action Admits								
1994-95	901	532	1,769	45	479	0	0	3,726
1995-96	938	523	1,795	46	483	0	0	3,785
1996-97	954	529	1,820	46	476	0	0	3,825
1997-98	994	556	1,879	45	480	0	0	3,954
1998-99	1,006	598	2,019	50	491	0	0	4,164
1999-00	1,012	635	2,114	50	496	0	0	4,307
2000-01	1,022	668	2,207	50	489	0	0	4,436
2001-02	1,025	690	2,265	53	489	0	0	4,522
2002-03	1,048	708	2,347	53	483	0	0	4,639
2003-04	1,088	727	2,437	56	484	0	0	4,792
2004-05	1,115	725	2,531	59	476	0	0	4,906
2005-06	1,146	749	2,634	61	462	0	0	5,052

Source California Postsecondary Education Commission 1995 Baseline Enrollment Demand Projection

DISPLAY 21 Summary of Forecast Assumptions Regarding Regularly Admitted First-Time Freshmen to the California State University, by Racial/Ethnic Group

Population	Demographic Assumptions
African American Students	The public high school participation rate of regularly admissible African-American students to the State University is forecast to increase from 4 5 percent in 1993 to 6 5 percent in year 2005
	Approximately 15 percent of entering African-American freshmen are forecast to have graduated from private high schools
	The five-year persistence rate of 40 percent is projected to increase to 42 percent by year 2000, and it will approximate the 12-year eventual graduation rate
Asian, Filipino and Pacific Islander Students	The Asian public high school participation rate is expected to return from 12 5 percent to its historical average of 19 percent The increase represents an average annual growth rate of 0 5 percentage points
	Approximately 10 percent of entering Asian freshmen are forecast to have graduated from private high schools
	The five-year persistence rate of 60 percent is forecast to increase to 64 percent by year 2000, and it will approximate the 12-year eventual graduation rate
Latino Students	The Latino public high school participation rate is forecast to increase from 4 0 percent to 6 0 by year 2005
	Approximately 20 percent of entering Latino freshmen are forecast to have graduated from private high schools
Native American	The five-year persistence rate of 50 6 is projected to increase to 59 percent by year 2000, and it will approximate the 12-year eventual graduation rate
	The public high school participation rate of 9 0 percent is forecast to remain constant throughout the projection period
	Approximately 15 percent of entering Native American freshmen are forecast to have graduated from private high schools
	The five-year persistence rate of 44 0 percent is forecast to increase to 46 0 percent by year 2000, and it will approximate the 12-year graduation rate
White Students	The public high school participation rate for White students to the Statue University is forecast to return to 9 0 percent by year 2005 This represents an average annual growth of 0 25 percentage points
	Approximately 15 percent of entering White entering freshmen are forecast to have graduated from private high schools
	The five-year persistence rate of 59 0 percent is forecast to remain unchanged, and it will approximate the 12-year eventual graduation rate

Source California Postsecondary Education Commission 1995 Baseline Enrollment Demand Projections

from now Additionally, the projected short-term reduction in the size of California's 20-29 college age-group may affect future community college enrollments and subsequent transfers to the State University As shown in Display 22 below, entering transfer students account for approximately 13 percent of undergraduate demand

Based on its Baseline Projection shown in Display 23 on page 50, the Commission anticipates that undergraduate transfer demand to the State University may increase by 24 4 percent to 59,224 transfers in 2005, compared with 1993 Under the Low Alternative Projection, presented in Display 24 on page 51, transfer demand is forecast to grow by approximately 9 percent by Fall 2005 Both projection models hold the three groups of out-of-state transfers, transfers from other California universities, and nonresident aliens constant at 13 percent of the total number of entering transfers In general, these projections return age-specific community college transfer rates to pre-recession averages These rates are presented in Display 25 on page 52

DISPLAY 22 *Undergraduate Enrollment in the California State University by Enrollment Category Between 1994 and 2005, Using the Commission's Baseline Projection*

	First-Time Freshmen		Transfer Students		Continuing Students		
Fall	Number	Percent	Number	Percent	Number	Percent	Number
1994	26,674	10%	33,808	13%	201,025	77%	261,508
1995	27,985	11%	37,764	14%	195,725	75%	261.474
1996	29,175	11%	33,365	13%	201,502	76%	264,042
1997	31,123	12%	33,334	12%	204,437	76%	268,894
1998	33,897	12%	33,764	12%	206,085	75%	273,746
1999	36,281	13%	34,110	12%	207,503	75%	277,894
2000	37,644	13%	35,630	12%	211,770	74%	285,044
2001	38,914	13%	37,052	13%	217,321	74%	293,287
2002	40,111	13%	38,040	13%	224,165	74%	302,317
2003	41,662	13%	39,710	13%	233,084	74%	314,456
2004	42,571	13%	40,968	13%	241,682	74%	325,221
2005	43,765	13%	42,049	13%	249,582	74%	335,396

Note This display includes first-time freshmen and transfer students entering in the fall term only

Source California Postsecondary Education commission 1995 Baseline Enrollment Demand Projection

DISPLAY 23 *Anticipated Enrollment Demand of First-Time Transfer Students to the California State University Between 1994-95 and 2005-06, Using the Commission's Baseline Projection, by Racial/Ethnic and Other Group*

Year	African American	Asian	Latino	Native American	White	Other California Institution	Out-of-State	Foreign Students	Total
Number									
1994-95	2,166	8,143	7,786	495	22,837	1,905	3,333	952	47,617
1995-96	3,004	9,864	9,386	525	23,495	2,128	3,723	1,064	53,189
1996-97	2,669	9,232	8,940	460	19,583	1,880	3,290	940	46,993
1997-98	2,649	9,318	8,858	465	19,556	1,878	3,286	939	46,949
1998-99	2,685	9,440	8,931	482	19,835	1,902	3,329	951	47,555
1999-00	2,718	9,399	8,860	493	20,327	1,922	3,363	961	48,043
2000-01	2,946	9,706	9,310	505	21,192	2,007	3,513	1,004	50,183
2001-02	3,160	10,040	9,544	518	22,140	2,087	3,653	1,044	52,186
2002-03	3,221	10,217	9,706	533	22,936	2,143	3,750	1,072	53,578
2003-04	3,352	10,375	9,959	570	24,403	2,237	3,915	1,119	55,930
2004-05	3,443	10,602	10,270	612	25,273	2,308	4,039	1,154	57,701
2005-06	3,547	10,806	10,537	653	25,982	2,369	4,146	1,184	59,224
Percent									
1994-95	4 64%	17 44%	16 68%	1 06%	48 93%	4 08%	7 14%	2 04%	N/A
1995-96	6 43%	18 92%	18 00%	1 00%	45 07%	4 08%	7 14%	2 04%	11 70%
1996-97	5 71%	20 04%	19 41%	0 99%	42 52%	4 08%	7 14%	2 04%	-11 64%
1997-98	5 67%	20 25%	19 25%	1 01%	42 50%	4 08%	7 14%	2 04%	-0 09%
1998-99	5 75%	20 25%	19 16%	1 03%	42 56%	4 08%	7 14%	2 04%	1 29%
1999-00	5 82%	19 96%	18 81%	1 04%	43 17%	4 08%	7 14%	2 04%	1 02%
2000-01	6 31%	19 73%	18 93%	1 02%	43 09%	4 08%	7 14%	2 04%	4 45%
2001-02	6 77%	19 63%	18 66%	1 01%	43 29%	4 08%	7 14%	2 04%	3 99%
2002-03	6 90%	19 45%	18 48%	1 01%	43 68%	4 08%	7 14%	2 04%	2 66%
2003-04	7 18%	18 92%	18 16%	1 03%	44 52%	4 08%	7 14%	2 04%	4 38%
2004-05	7 37%	18 74%	18 16%	1 08%	44 69%	4 08%	7 14%	2 04%	3 16%
2005-06	7 60%	18 61%	18 15%	1 12%	44 76%	4 08%	7 14%	2 04%	2 63%

Source California Postsecondary Education Commission 1995 Baseline Enrollment Demand Projection

DISPLAY 24 ***Anticipated Enrollment Demand of First-Time Transfer Students to the California State University Between 1994-95 and 2005-06, Using the Commission's Low Alternative Projection, by Racial/Ethnic and Other Group***

Year	African American	Asian	Latino	Native American	White	Other California Institution	Out-of-State	Foreign Students	Total
Number									
1994-95	2,168	8,147	7,786	496	22,807	1,904	3,331	952	47,591
1995-96	2,951	9,846	9,305	514	23,159	2,105	3,683	1,052	52,615
1996-97	2,574	9,192	8,790	440	18,872	1,833	3,208	917	45,825
1997-98	2,509	9,256	8,630	436	18,547	1,810	3,168	905	45,262
1998-99	2,496	9,355	8,618	443	18,450	1,810	3,167	905	45,244
1999-00	2,480	9,290	8,476	444	18,457	1,800	3,150	900	44,997
2000-01	2,635	9,569	8,849	446	18,847	1,855	3,246	927	46,375
2001-02	2,726	9,866	9,025	448	19,360	1,905	3,333	952	47,615
2002-03	2,804	10,003	9,097	452	19,724	1,935	3,386	967	48,368
2003-04	2,882	10,129	9,262	474	20,621	1,994	3,489	997	49,848
2004-05	2,922	10,327	9,501	500	20,969	2,033	3,558	1,017	50,826
2005-06	2,954	10,512	9,727	525	21,238	2,067	3,617	1,033	51,674
Percent									
1994-95	4 64%	17 46%	16 69%	1 06%	48 90%	4 08%	7 14%	2 04%	N/A
1995-96	6 32%	19 09%	18 04%	0 99%	44 91%	4 08%	7 14%	2 04%	10 55%
1996-97	5 51%	20 46%	19 57%	0 97%	42 02%	4 08%	7 14%	2 04%	-12 90%
1997-98	5 37%	20 86%	19 45%	0 98%	41 81%	4 08%	7 14%	2 04%	-1 22%
1998-99	5 35%	21 09%	19 43%	0 99%	41 61%	4 08%	7 14%	2 04%	-0 04%
1999-00	5 31%	21 06%	19 22%	1 00%	41 85%	4 08%	7 14%	2 04%	-0 54%
2000-01	5 64%	21 05%	19 47%	0 98%	41 47%	4 08%	7 14%	2 04%	3 06%
2001-02	5 84%	21 14%	19 34%	0 96%	41 48%	4 08%	7 14%	2 04%	2 67%
2002-03	6 01%	21 10%	19 19%	0 95%	41 61%	4 08%	7 14%	2 04%	1 58%
2003-04	6 17%	20 73%	18 95%	0 97%	42 21%	4 08%	7 14%	2 04%	3 06%
2004-05	6 26%	20 73%	19 07%	1 00%	42 09%	4 08%	7 14%	2 04%	1 96%
2005-06	6 33%	20 75%	19 20%	1 03%	41 93%	4 08%	7 14%	2 04%	1 66%

Source California Postsecondary Education Commission 1995 Baseline Enrollment Demand Projection

DISPLAY 25 Community College Transfers to the California State University in Terms of Rate Per 1,000 Students, by Age and Racial-Ethnic Group, 1993 and Projected 2005

Racial/Ethnic Group	Year	18 to 19	20 to 24	25 to 29	30 to 49	50 & Over
African American	1993	3	33	20	13	4
Students	2005	4	35	21	18	7
Asian Students	1993	4	68	38	14	4
	2005	8	68	38	14	4
Latino Students	1993	2	46	25	13	4
	2005	3	48	26	15	6
Native American	1993	2	40	21	15	7
Students	2005	8	48	25	17	9
White Students	1993	3	48	19	11	2
	2005	6	56	23	14	3

DISPLAY 26 Projected Continuation and Graduation Rates, New First-Time Students to the California State University, by Racial/Ethnic Group and Cateogry of Admission

Racial/Ethnic Group	Category of Admission	Five-Year Continuation	Forecast Five-Year Graduation	Twelve-Year Graduation	Forecast Twelve-Year Graduation
African American Students	Freshman Regular Admit Freshman Special Admit Transfer Student	26 11	14 30	40 41	42 43
Asian Students	Freshman Regular Admit Freshman Special Admit Transfer Student	33 10	29 54	62 64	66 66
American Indian Students	Freshman Regular Admit Freshman Special Admit Transfer Student	27 08	17 48	44 56	46 58
Latino Students	Freshman Regular Admit Freshman Special Admits Transfer Student	33 12	18 44	51 56	59 58
White Students	Freshman Regular Admit Freshman Special Admit Transfer Student	25 08	29 55	54 63	59 65

Source California Postsecondary Education Commission

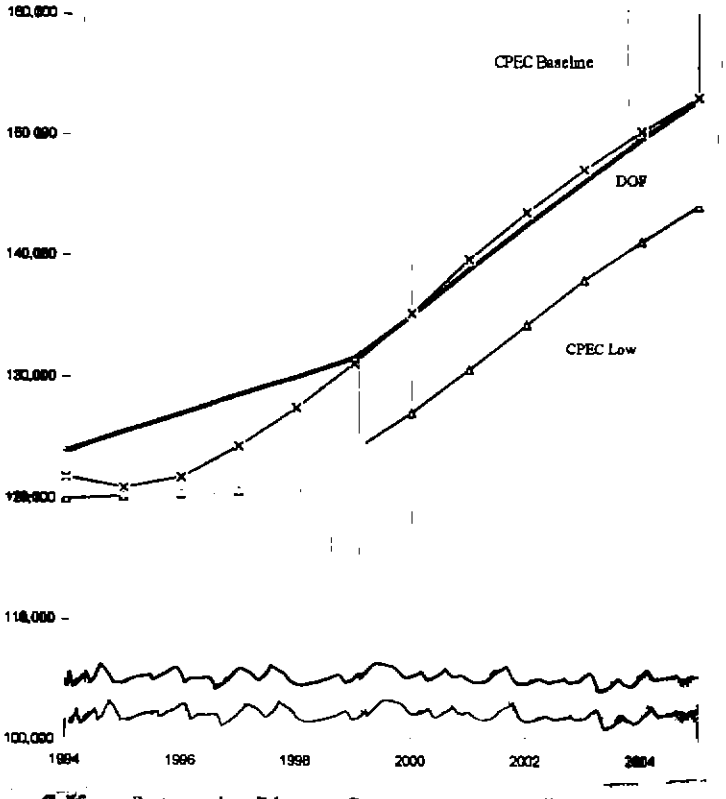
Approximately 74 percent of undergraduate demand for the State University is generated by the continuation and persistence-to-graduation of enrolled students To enhance these rates, the total State University system has developed a number of initiatives through more efficient educational support services, greater faculty-student interaction, and more interactive student advising In addition, numerous programs have been developed both at the campus and systemwide level to help students earn their degrees in the time frame that best suits their needs These programs include Dominguez Hills' "Four-Year Pledge," the CSU Passport, Improved Course Registration, Educational Mentoring Teams, and Project DELTA

The Chancellor's Office report, *Those Who Stay* (1990), documented improvements in graduation rates across all racial-ethnic groups for both transfer students and first-time freshmen Display 26 at the left lists the continuation and graduation rates that the Commission has used to estimate re-enrollment demand at the State University

Projected enrollment demand at the University of California

The University of California, with eight general campuses and one health science campus, currently serves 162,304 students chosen from the top one-eighth of high school graduates, through program offerings in nearly 300 academic disciplines and fields The California Master Plan accords the University exclusive public responsibility for doctoral education (excluding joint programs) and for instruction in law, medicine, dentistry, and veterinary medicine The Commission believes that the University's total enrollment demand will increase by 19 7 percent to 195,167 by Fall 2005, indicating a need for the University to accommodate 32,064 more students Display 27 below shows that the Commission's Baseline Projection for undergraduates closely matches the undergraduate enrollment projection prepared by the Demographic Research Unit of the Department of Finance The Unit's estimate calculates enrollment as dipping slightly this year, reviving the next year, and then growing by about 2 8 percent annually to 153,100 by 2005 -- a difference of only 170 students from the Commission's Baseline Projection

DISPLAY 27 Undergraduate Enrollment Demand at the University of California, 1994 to 2005, as Forecast by the Commission under Baseline and Low Alternative Assumptions, Compared to Undrgraduate Enrollment as Forecast by the Demographic Research Unit of the Department of Finance



Source: California Postsecondary Education Commission 1995 Baseline and Low Alternative Undergraduate Enrollment Demand Projections, and Department of Finance 1994 Enrollment Projection Series

Under the Commission's Low Alternative Projection, shown in Display 29 on page 55, the University's total enrollment demand would rise 13 6 percent At the undergraduate level, it would remain virtually static for the next five years, and then grow by about 2 5 percent each autumn to 143,098 by Fall 2005 Even this low projection would represent an increase of 17 percent, or about 21,000 additional undergraduates, since Fall 1993

Although the undergraduate baseline forecasts prepared by the Commission and the Department of Finance are remarkably similar, it should be noted that the process of estimating undergraduate demand for the University is extremely complicated One major reason is that, unlike analyses of historical enrollment levels at the community colleges and the State University, those at the University do not always provide a reasonable approximation of

DISPLAY 28 *Anticipated Total Enrollment Demand at the University of California Between 1994-95 and 2005-06, Using the Commission's Baseline Projection, by Racial/Ethnic and Other Group*

Fall of Year	African American	Asian	Latino	Native American	White/ Other	Out-of-State and Nonresident Alien	Total Undergraduates	Graduate Students[2]	All Students
	Undergraduate Students[1]								
Number									
1993	5,110	36,660	16,425	1,161	53,746	9,170	122,272	40,831	163,103
1994	5,202	37,422	17,052	1,171	53,762	9,264	123,873	40,896	164,769
1995	5,226	38,184	17,679	1,179	53,778	9,358	125,404	40,454	165,858
1996	5,250	38,946	18,306	1,188	53,794	9,452	126,936	40,307	167,243
1997	5,274	39,708	18,933	1,197	53,810	9,546	128,468	40,307	168,775
1998	5,298	40,470	19,560	1,209	53,827	9,640	130,004	40,307	170,311
1999	5,325	41,235	20,190	1,221	53,844	9,736	131,551	40,307	171,858
2000	5,482	43,175	21,186	1,228	53,861	10,136	135,068	40,307	175,375
2001	5,651	45,295	22,251	1,235	53,878	10,580	138,890	40,456	179,346
2002	5,843	47,223	23,402	1,246	53,890	10,974	142,578	40,897	183,475
2003	6,079	48,938	24,593	1,317	53,895	11,323	146,145	41,339	187,484
2004	6,340	50,152	25,835	1,388	54,461	11,595	149,771	41,785	191,556
2005	6,620	51,304	27,170	1,456	54,554	11,826	152,930	42,237	195,167
Percent Change									
1994	1 80%	2 07%	3 81%	0 86%	0 02%	1 02%	1 30%	0 16%	1 02%
1995	0 46%	2 03%	3 67%	0 68%	0 02%	1 01%	1 23%	-1 08%	0 66%
1996	0 45%	1 99%	3 54%	0 76%	0 02%	1 00%	1 22%	-0 36%	0 83%
1997	0 45%	1 95%	3 42%	0 75%	0 02%	0 99%	1 20%	0 00%	0 91%
1998	0 45%	1 91%	3 31%	1 00%	0 03%	0 98%	1 19%	0 00%	0 91%
1999	0 50%	1 89%	3 22%	0 99%	0 03%	0 99%	1 18%	0 00%	0 90%
2000	2 94%	4 70%	4 93%	0 57%	0 03%	4 10%	2 67%	0 00%	2 04%
2001	3 08%	4 91%	5 02%	0 57%	0 03%	4 38%	2 82%	0 37%	2 26%
2002	3 39%	4 25%	5 17%	0 89%	0 02%	3 72%	2 65%	1 08%	2 30%
2003	4 03%	3 63%	5 08%	5 69%	0 01%	3 18%	2 50%	1 08%	2 18%
2004	4 29%	2 48%	5 05%	5 39%	1 05%	2 40%	2 48%	1 07%	2 17%
2005	4 41%	2 29%	5 16%	4 89%	0 17%	1 99%	2 10%	1 08%	1 88%
Total Change	29 54%	39 94%	65 41%	25 40%	1 50%	28 96%	25 07%	3 44%	19 65%

1 Undergraduate enrollment demand developed by the California Postsecondary Education Commission.

2 Graduate enrollment projections developed using annual change rate projected by Department of Finance

Note Graduate demand includes post-baccalaureate students and students pursuing health professions

Source California Postsecondary Education Commission 1995 Baseline Enrollment Demand Projections

DISPLAY 29 *Anticipated University of California Enrollment Demand Between Fall 1993 and Fall 2005, Using the Commission's Low Alternative Projection, by Racial/Ethnic and Other Group*

	Undergraduate Students[1]								
Fall of Year	African American	Asian	Latino	Native American	White/ Other	Out-of-State and Nonresident Alien	Total Undergraduates	Graduate Students[2]	All Students
Number									
1993	5,110	36,660	16,425	1,161	53,746	9,170	122,272	40,831	163,103
1994	5,135	37,323	16,951	1,171	52,456	9,260	122,296	40,896	163,192
1995	5,160	37,986	17,477	1,179	51,168	9,350	122,320	40,454	162,774
1996	5,185	38,649	18,003	1,188	49,879	9,440	122,344	40,307	162,651
1997	5,210	39,312	18,529	1,197	48,588	9,532	122,368	40,307	162,675
1998	5,235	39,975	19,055	1,209	47,298	9,620	122,392	40,307	162,699
1999	5,260	40,638	19,581	1,221	49,504	9,699	125,903	40,307	166,210
2000	5,285	42,364	20,368	1,228	49,531	9,838	128,614	40,307	168,921
2001	5,312	44,247	21,214	1,235	49,797	10,101	131,906	40,456	172,362
2002	5,449	45,989	22,127	1,246	50,081	10,344	135,236	40,897	176,133
2003	5,627	47,584	23,062	1,317	50,318	10,558	138,466	41,339	179,805
2004	5,824	48,751	24,029	1,388	50,415	10,717	141,124	41,785	182,909
2005	6,036	49,914	25,056	1,456	49,839	10,787	143,088	42,237	185,325
Percent Change									
1994	0 49%	1 81%	3 20%	0 86%	-2 40%	0 98%	0 02%	0 16%	0 05%
1995	0 49%	1 78%	3 10%	0 68%	-2 46%	0 97%	0 02%	-1 08%	-0 26%
1996	0 48%	1 75%	3 01%	0 76%	-2 52%	0 96%	0 02%	-0 36%	-0 08%
1997	0 48%	1 72%	2 92%	0 76%	-2 59%	0 97%	0 02%	0 00%	0 01%
1998	0 48%	1 69%	2 84%	1 00%	-2 65%	0 92%	0 02%	0 00%	0 01%
1999	0 48%	1 66%	2 76%	0 99%	4 66%	0 82%	2 87%	0 00%	2 16%
2000	0 48%	4 25%	4 02%	0 57%	0 05%	1 43%	2 15%	0 00%	1 63%
2001	0 51%	4 44%	4 15%	0 57%	0 54%	2 67%	2 56%	0 37%	2 04%
2002	2 58%	3 94%	4 30%	0 89%	0 57%	2 41%	2 52%	1 09%	2 19%
2003	3 27%	3 47%	4 23%	5 70%	0 47%	2 07%	2 39%	1 08%	2 08%
2004	3 50%	2 45%	4 19%	5 39%	0 19%	1 51%	1 92%	1 08%	1 73%
2005	3 64%	2 39%	4 27%	4 90%	-1 14%	0 65%	1 39%	1 08%	1 32%
Total Change	18 12%	36 15%	52 55%	25 41%	-7 27%	17 63%	17 02%	3 44%	13 62%

1 Undergraduate enrollment demand developed by California Postsecondary Education Commission

2 Graduate enrollment projections developed using annual change rate projected by Department of Fiannce

Note Graduate demand includes post-baccalureate students and students pursuing health professions

Source California Postsecondary Education Commission 1995 Low Alternative Enrollment Demand Projections

the University's potential demand This is both because most new University students are recent high school graduates (63%), and because it is possible for the University, through what it refers to as "consumption," to manipulate demand For example, in periods when demand needs to be adjusted downward, over-subscribed campuses, such as Berkeley and UCLA, may need to be even more selective in admitting from among the top one-eighth of high school graduates The University system will then redirect some of these qualified applicants to other campuses where space is available Since many of the redirected students will choose not to enroll in an alternate campus, the net effect is lowered demand

The University can also affect demand through varying levels of outreach and recruitment services, raised eligibility standards, reduced opportunities for selected groups (e g , transfers from institutions other than California community colleges), and reductions in the number of allotted special-action admission slots It is clear that in whatever manner the University chooses to manage consumption, it will have a profound effect on future enrollment demand The following projections of first-time freshmen and transfers assume that the University will continue to maximize access and college preparedness through appropriate levels of outreach and recruitment services

New freshmen

During the second half of the 1980s, the proportion of public high school graduates who enrolled at the University of California as first-time freshmen averaged 7 6 percent During the first four years of the 1990s, participation slipped to about 6 7 percent, but it now appears to be on the upswing The Fall 1994 freshman class of approximately 22,000 students was the second largest entering class in the history of the University The Commission's Baseline Projection forecasts the University's public high-school participation rate to eventually edge up to 8 5 percent by Fall 2005 The Commission expects that increase to accentuate the University's enrollment gains of Latino and African American students -- the two racial/ethnic groups with the historically lowest enrollment rates

The Commission's 1992 Eligibility Study found that some 12 3 percent of the 1990 public high school graduates were eligible to attend the University Furthermore, another 6 5 percent were potentially eligible, translating to a total eligible pool of approximately 19 percent The term "fully eligible" refers to those high school graduates whose academic performance was consistent with one of the three certified methods of qualifying for admission "Potentially eligible" refers to high school graduates who met the scholarship and subject requirements, but who did not complete the full pattern of examinations The "total eligible pool" comprises those students who were either fully or potentially eligible to the University As shown by Display 30 at the top of the opposite page, the 1990 estimates reflect substantial gains in the eligibility pool since 1983

If eligibility were to increase over the next years at rates similar to the annualized rates calculated between 1986 and 1990, then by Fall 2000, the proportion of public high school graduates who meet all eligibility requirements would be substan-

DISPLAY 30 Percentage of Pubic High School Graduates Eligible for Freshman Admission to the University of California, by Racial/Ethnic Group and Eligibility Category, 1983, 1986, and 1990

Racial/Ethnic Group	Eligibility	1983	1986	1990
All Graduates	Eligible Pool	13 2%	14 1%	18 8%
	Fully Eligible	7 0	9 1	12 3
African American Graduates	Eligible Pool	3 6	4 5	7 5
	Fully Eligible	1 4	2 3	5 1
Asian Graduates	Eligible Pool	26 0	32 8	40 4
	Fully Eligible	17 3	24 9	32 2
Latino Graduates	Eligible Pool	4 9	5 0	6 8
	Fully Eligible	1 4	3 1	3 9
White Graduates	Eligible Pool	15 5	15 8	20 5
	Fully Eligible	7 7	10 1	12 7

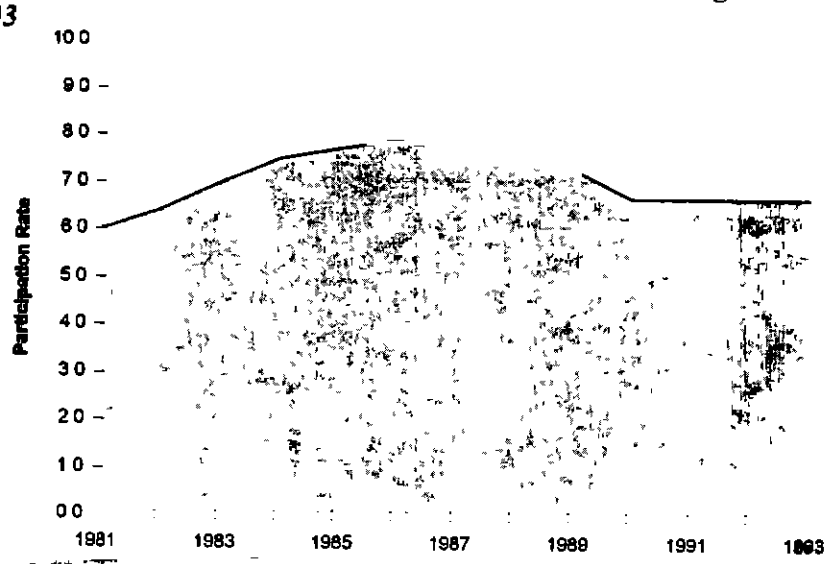
Source California Postseondary Education Commission, High School Eligibility Reports, 1983, 1986, and 1990

tially above the current Master Plan ceiling The Commission does not anticipate that the most recent trend in eligibility will persist into the next decade However, it does expect that a higher proportion of African-American and Latino first-time freshmen admits will be regularly admissible During the five-year period prior to the 1990 recession, the public high school participation rate for African-American and Latino students was approximately twice their eligibility rate That is, the eligibility rate for these two groups averaged about 2 5 percent while their participation rate averaged about 5 percent This was because the university's outreach and recruitment programs were quite successful in identifying and enrolling African Americans and Latinos who were not necessarily fully eligible, but who met the standards for special action consideration Over the past several years, special action enrollment rates have declined by several percentage points

Based on the observed improvements in eligibility between 1986 and 1990 across all racial-ethnic groups, it is not believed that demand for special action slots will return to the historical averages of the 1980s Therefore, under the Commission's Baseline Projection, special action enrollment rates are held constant at 1993 levels The public high school participation rates for African Americans and Latino students are still expected to average about 5 percent However, the noted decline in special action admission rates for these two racial groups is expected to be offset by a gradual one percentage point increase in the participation rate of African American and Latino high school graduates who are fully eligible

Display 31 on page 58 plots freshman enrollment or participation rates for California's public high school graduates from 1981 through 1993 and shows it holding steady at about 6 5 percent for the past three years Based on the specific assumptions and anticipated participation rates that the Commission has used to forecast demand of regularly admissible freshmen by racial/ethnic group (provided in Display 32 on page 59), the Commission foresees an overall 2 percentage-point rise in this 6 5 percent participation rate over the 12 years between 1993 and 2005

DISPLAY 31 Enrollment Rates of California High School Graduates in the University of California, Fall 1981 Through Fall 1993



Source California Postsecondary Education Commission Information System

The Commission's Baseline Projection shown in Display 33 on page 60 forecasts first-time freshman enrollment demand at the University increasing by 45 percent by year 2005 Under the Low Alternative presented in Display 34 on page 61, freshman demand would increase by 29 percent (Both the Baseline and the Low Alternative Projections hold rates for special-action students constant at the actual 1993 levels) Display 35 on page 62 shows that under the Commission's Base-line Projection, first-time freshmen will account for approximately 20 percent of the University's undergraduate enrollment as early as 1999

New undergraduate transfer students

Community college transfers account for about 90 percent of all undergraduate transfers to the University of California The remaining 10 percent include students from other California colleges and universities (5 percent), students from out-of-state schools (4 percent), and nonresident aliens (1 percent) Like new transfer students to the State University, the number of new community college transfers to the University seems to have been unaffected by California's recent recession Between 1989 and 1993, this number increased by 22 percent However, also as at the State University, the recent decline in community college enrollment and the short-term reduction in California's college-age population of 20- to 29-year olds may affect the number of domestic transfers to the University over the next several years

The Commission's Baseline Projection for new undergraduate transfers at the University shown in Display 36 on page 63 forecasts demand to increase by 14 percent to 15,116 transfers in Fall 2005 Under the Low Alternative Projection presented in Display 37 on page 64, transfer demand would increase by 10 4 percent In general, the Baseline Projection returns all age-specific community college transfer rates to the pre-recession averages shown in Display 38 Both alternatives hold out-of-state transfers, transfers from other California universities, and nonresident aliens constant at 10 percent of total transfers

Continuation and graduation rates

Approximately 73 percent of undergraduate demand for the University of California is generated by the continuation and persistence-to-graduation of enrolled students On the average, nine of every ten (91 1 percent) regularly admitted fresh-

DISPLAY 32 Summary of Forecast Assumptions Regarding Regularly Admitted First-Time Freshmen to the University of California, by Racial/Ethnic Group

Population	Demographic Assumptions
African American Students	The public high school participation rate of regularly admissible African-American students to the University of California is forecast to increase from 2 8 percent in 1993 to 3 8 percent in 2005 and remain constant thereafter
	Approximately 21 percent of entering African-American freshmen are forecast to have graduated from private high schools
	The six-year graduation rate of 62 percent is projected to remain unchanged
Asian, Filipino, and Pacific Islander Students	The Asian public high school participation rate is expected to increase from 17 1 percent to 18 4 percent and remain constant thereafter
	Approximately 6 percent of entering Asian freshmen are forecast to have graduated from private high schools
	The Asian six-year graduation rate of 74 0 percent is forecast remain unchanged
Latino Students	The Latino public high school participation rate is forecast to increase from 2 9 percent to 3 9 by 2005 and remain constant thereafter
	Approximately 18 percent of entering Latino students are forecast to have graduated from private high schools
	The six-year graduation rate of 66 percent is projected to remain unchanged
Native American Students	The public high school participation rate of 5 5 percent is forecast to return to 9 0 percent by year 2005
	Approximately 16 percent of entering Native American freshmen are forecast to have graduated from private high schools
	The six-year graduation rate of 64 0 percent for native American students is forecast to remain unchanged
White Students	The public high school participation rate for White students to the University is forecast to return from 5 7 percent to 7 2 percent by year 2005
	Approximately 14 percent of entering White freshmen are forecast to have graduated from private high school schools
	The six-year graduation rate of 75 0 for White students is forecast to remain unchanged

Source California Postsecondary Education Commission 1995 Baseline Enrollment Demand Projections

DISPLAY 33 *Anticipated Enrollment Demand of New Students to the University of California as First-Time Freshmen Between 1994-95 and 2005-06, Using the Commission's Baseline Projection, by Racial/Ethnic and Other Group*

Year	African American	Asian	Latino	Native American	White/ Other	Out-of-State	Foreign Students	Total
Regular Admits								
1994-95	680	6,973	2,806	140	8,020	1,637	203	20,458
1995-96	730	6,906	2,923	158	8,386	1,679	208	20,990
1996-97	766	7,038	3,040	170	8,586	1,723	213	21,536
1997-98	822	7,460	3,218	180	8,955	1,814	224	22,673
1998-99	856	8,096	3,544	215	9,486	1,951	241	24,390
1999-00	885	8,658	3,802	228	9,907	2,064	255	25,799
2000-01	919	9,175	4,063	244	10,087	2,152	266	26,907
2001-02	946	9,562	4,265	273	10,393	2,236	277	27,952
2002-03	992	9,813	4,518	275	10,304	2,277	282	28,461
2003-04	1,056	10,081	4,796	291	10,319	2,333	289	29,165
2004-05	1,109	10,049	5,087	302	10,150	2,347	290	29,334
2005-06	1,170	10,381	5,407	312	9,848	2,384	295	29,797
Special Action Admits								
1994-95	244	152	462	19	240	0	0	1,117
1995-96	254	149	468	20	241	0	0	1,132
1996-97	258	151	475	20	238	0	0	1,142
1997-98	269	159	490	19	240	0	0	1,177
1998-99	272	171	527	22	245	0	0	1,237
1999-00	274	181	552	21	248	0	0	1,276
2000-01	277	191	576	22	245	0	0	1,311
2001-02	278	197	591	23	244	0	0	1,333
2002-03	284	202	612	23	242	0	0	1,363
2003-04	295	208	636	24	242	0	0	1,405
2004-05	302	207	660	25	238	0	0	1,432
2005-06	310	214	687	26	231	0	0	1,468

Source California Postsecondary Education Commission 1995 Baseline Enrollment Projection.

DISPLAY 34 Anticipated Enrollment Demand of New Students to the University of California as First-Time Freshmen Between 1994-95 and 2005-06, Using the Commission's Low Alternative Projection, by Racial/Ethnic and Other Group

Year	African American	Asian	Latino	Native American	White/ Other	Out-of-State	Foreign Students	Total
Regular Admits								
1994-95	680	6,973	2,806	140	8,020	1,637	203	20,458
1995-96	719	6,868	2,885	158	8,073	1,644	204	20,550
1996-97	743	6,961	2,963	170	7,968	1,653	205	20,663
1997-98	786	7,339	3,099	180	8,021	1,708	212	21,345
1998-99	807	7,922	3,373	215	8,211	1,804	224	22,557
1999-00	825	8,428	3,578	228	8,297	1,877	233	23,465
2000-01	845	8,885	3,782	244	8,182	1,928	239	24,104
2001-02	860	9,211	3,928	273	8,173	1,973	245	24,664
2002-03	891	9,467	4,120	275	8,080	2,007	249	25,089
2003-04	939	9,751	4,330	291	8,092	2,057	255	25,715
2004-05	975	9,745	4,550	302	7,960	2,068	256	25,857
2005-06	1,016	10,092	4,792	312	7,723	2,104	261	26,300
Special Action Admits								
1994-95	244	152	462	19	240	0	0	1,117
1995-96	254	149	468	20	241	0	0	1,132
1996-97	258	151	475	20	238	0	0	1,142
1997-98	269	159	490	19	240	0	0	1,177
1998-99	272	171	527	22	245	0	0	1,237
1999-00	274	181	552	21	248	0	0	1,276
2000-01	277	191	576	22	245	0	0	1,311
2001-02	278	197	591	23	244	0	0	1,333
2002-03	284	202	612	23	242	0	0	1,363
2003-04	295	208	636	24	242	0	0	1,405
2004-05	302	207	660	25	238	0	0	1,432
2005-06	310	214	687	26	231	0	0	1,468

Source California Postsecondary Education Commission 1995 Low Alternative Enrollment Projection.

DISPLAY 35 Undergraduate Enrollment in the University of California by Enrollment Category Between 1994 and 2005, Using the Commission's Baseline Projection

	First-Time Freshmen		Transfer Students		Continuing Students		
Fall	Number	Percent	Number	Percent	Number	Percent	Number
1994	21,144	17%	9,950	8%	92,779	75%	123,873
1995	21,680	17%	10,361	8%	93,363	74%	125,404
1996	22,225	18%	10,486	8%	94,225	74%	126,936
1997	23,373	18%	10,215	8%	94,879	74%	128,468
1998	25,114	19%	9,928	8%	94,962	73%	130,004
1999	26,534	20%	9,799	7%	95,218	72%	131,551
2000	27,654	20%	9,915	7%	97,499	72%	135,068
2001	28,699	21%	10,106	7%	100,084	72%	138,890
2002	29,227	20%	10,405	7%	102,946	72%	142,578
2003	29,958	20%	10,703	7%	105,483	72%	146,145
2004	30,151	20%	11,037	7%	108,583	72%	149,771
2005	30,639	20%	11,337	7%	110,953	73%	152,930

Note This display includes first-time freshmen and transfers entering in the fall only

Source California Postsecondary Education Commission 1995 Baseline Enrollment Demand Projection.

men continue through their first year and into their second year, and about 65 percent graduate within seven years Likewise, nearly nine of every ten (88 6 percent) regularly admissible community college upper-division transfer students persist through their first year and into their second Of these transfer students, about 74 percent earn a baccalaureate degree within seven years Graduation rates for both first-time freshman and total transfer students are presented in Display 39 on page 65

Conclusion Although the Commission foresees most of the enrollment demand from "Tidal Wave II" beginning after 1999, the likely magnitude and composition of the increase can already be discerned, as shown in the graphs and tables of this report The Commission believes that the State's educational planners and policymakers must develop strategies and options now to ensure access by the year 2000 for the young people who constitute that approaching tidal wave The Commission believes that the projections in this report and the suggestions in forthcoming related reports will contribute to that success

DISPLAY 36 *Anticipated Enrollment Demand of First-Time Transfer Students to the University of California Between 1994-95 and 2005-06, Using the Commission's Baseline Projection, by Racial/Ethnic and Other Group*

Year	African American	Asian	Latino	Native American	White	Other California Institution	Other California Out-of-State	Foreign Students	Total
Number									
1994-95	321	3,087	1,670	128	6,661	676	581	142	13,267
1995-96	344	3,445	1,848	135	6,585	704	605	148	13,815
1996-97	356	3,736	1,985	122	6,307	713	613	150	13,982
1997-98	373	3,857	2,031	121	5,801	694	597	146	13,621
1998-99	363	3,880	2,017	121	5,459	675	580	142	13,237
1999-00	359	3,859	1,981	124	5,363	666	573	140	13,065
2000-01	370	3,888	1,988	129	5,450	674	579	142	13,220
2001-02	386	3,944	2,020	134	5,569	687	591	145	13,475
2002-03	408	4,037	2,065	140	5,759	707	608	149	13,873
2003-04	425	4,123	2,112	148	5,957	728	625	153	14,271
2004-05	448	4,203	2,170	158	6,184	750	645	158	14,716
2005-06	459	4,295	2,241	171	6,355	771	663	162	15,116
Percent									
1994-95	2 70%	26 01%	14.07%	1 07%	56 13%	5 09%	4 38%	1 07%	N/A
1995-96	2 78%	27 87%	14 95%	1 09%	53 28%	5 09%	4 38%	1 07%	4 12%
1996-97	2 84%	29 87%	15 87%	0 97%	50 43%	5 09%	4 38%	1 07%	1 20%
1997-98	3 06%	31 65%	16 67%	0 99%	47 61%	5 09%	4 38%	1 07%	-2 58%
1998-99	3 06%	32 77%	17 03%	1 02%	46 10%	5 09%	4 38%	1 07%	-2 81%
1999-00	3 07%	33 02%	16 95%	1 06%	45 89%	5 09%	4 38%	1 07%	-1 30%
2000-01	3 12%	32 87%	16 81%	1 09%	46 08%	5 09%	4 38%	1 07%	1 18%
2001-02	3 20%	32 72%	16 75%	1 11%	46 20%	5 09%	4 38%	1 07%	1 92%
2002-03	3 28%	32 53%	16 64%	1 12%	46 40%	5 09%	4 38%	1 07%	2 95%
2003-04	3 32%	32 29%	16 54%	1 15%	46 66%	5 09%	4 38%	1 07%	2 86%
2004-05	3 40%	31 93%	16 48%	1 20%	46 98%	5 09%	4 38%	1 07%	3 11%
2005-06	3 39%	31 76%	16 57%	1 26%	47 00%	5 09%	4 38%	1 07%	2 71%

Source California Postsecondary Education Commission 1995 Baseline Enrollment Demand Projection.

DISPLAY 37 *Anticipated Enrollment Demand of First-Time Transfer Students to the University of California Between 1994-95 and 2005-06, Using the Commission's Low Alternative Projection, by Racial/Ethnic and Other Group*

Year	African American	Asian	Latino	Native American	White	Other California Institution	Out-of-State	Foreign Students	Total
Number									
1994-95	261	3,087	1,670	109	6,283	641	564	140	12,755
1995-96	296	3,440	1,837	113	6,391	679	597	149	13,501
1996-97	331	3,681	1,902	98	5,247	633	556	138	12,586
1997-98	323	3,720	1,860	97	5,128	625	550	137	12,440
1998-99	320	3,749	1,848	98	5,092	624	549	137	12,417
1999-00	316	3,709	1,807	97	5,088	619	544	136	12,316
2000-01	332	3,789	1,858	98	5,208	634	557	139	12,616
2001-02	345	3,879	1,886	98	5,369	651	572	142	12,942
2002-03	358	3,941	1,898	99	5,486	662	582	145	13,171
2003-04	371	3,997	1,931	103	5,695	680	598	149	13,523
2004-05	377	4,088	1,983	108	5,813	695	611	152	13,827
2005-06	383	4,171	2,031	112	5,905	708	623	155	14,088
Percent									
1994-95	2 28%	27.05%	14 63%	0 95%	55 06%	5 02%	4 41%	1 10%	N/A
1995-96	2 45%	28 48%	15 21%	0 93%	52 91%	5 02%	4 41%	1 10%	5 84%
1996-97	2 93%	32 69%	16 89%	0 87%	46 60%	5 02%	4 41%	1 10%	-6 77%
1997-98	2 90%	33 42%	16 71%	0 87%	46 08%	5 02%	4 41%	1 10%	-1 16%
1998-99	2 88%	33 75%	16 63%	0 88%	45 84%	5 02%	4 41%	1 10%	-0 18%
1999-00	2 86%	33 66%	16 40%	0 88%	46 18%	5 02%	4 41%	1 10%	-0 81%
2000-01	2 94%	33 57%	16 46%	0 86%	46 14%	5 02%	4 41%	1 10%	2 43%
2001-02	2 98%	33 50%	16 29%	0 84%	46 37%	5 02%	4 41%	1 10%	2 58%
2002-03	3 03%	33 44%	16 10%	0 84%	46 56%	5 02%	4 41%	1 10%	1 77%
2003-04	3 06%	33 04%	15 96%	0 85%	47 07%	5 02%	4 41%	1 10%	2 67%
2004-05	3 04%	33 05%	16 03%	0 87%	46 99%	5 02%	4 41%	1 10%	2 24%
2005-06	3 03%	33 09%	16 11%	0 88%	46 85%	5 02%	4 41%	1 10%	1 88%

Source California Postsecondary Education Commission 1995 Baseline Enrollment Demand Projection

DISPLAY 38 Community College Transfer Rate to the University of California in Terms of Rate Per 1,000 Students, by Age and Racial-Ethnic Group, 1993 and Projected 2005

Racial/Ethnic Group	Year	18 to 19	20 to 24	25 to 29	30 to 49	50 & Over
African American	1993	1	7	3	1	1
Students	2005	1	8	4	1	1
Asian Students	1993	11	41	11	3	1
	2005	13	41	11	3	1
Latino Students	1993	1	15	7	2	1
	2005	2	17	7	2	1
Native American	1993	2	16	7	2	2
Students	2005	6	22	8	4	2
White Students	1993	2	21	7	3	1
	2005	4	21	7	3	1

Source California Postsecondary Education Commission.

DISPLAY 39 Seven-Year Graduation Rates of First-Time Freshmen and Transfer Students at the University of California, 1993-94

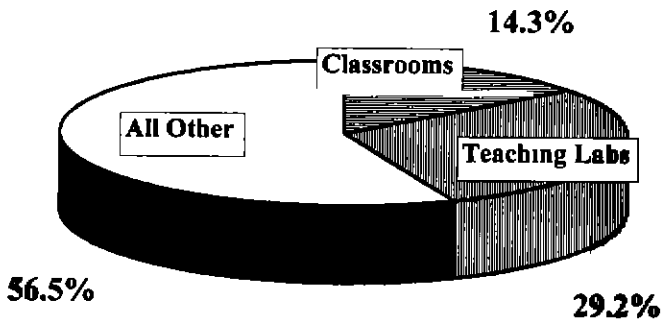
Racial Ethnic Group	Admission Category	Freshman	Transfer Students
African American Students	Regular	62	64
	Special Action	47	
Asian Students	Regular	74	76
	Special Action	43	
Native American Students	Regular	64	58
	Special Action	60	
Latino Students	Regular	66	69
	Special Action	43	
White Students	Regular	75	78
	Special Action	58	

Source California Postsecondary Education Commission Information System.

4 The Need to Expand: A Discussion of Physical Capacity

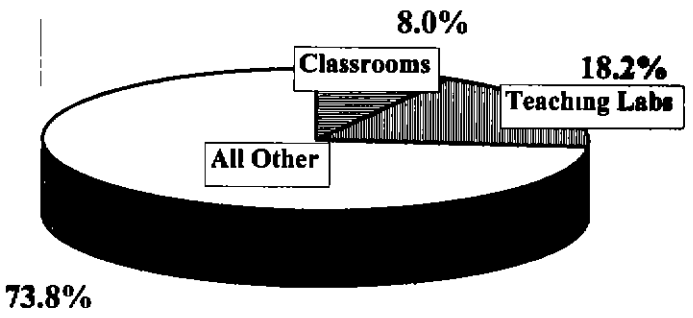
Introduction Determining the need for higher education physical facilities is a complex process Superficially, it appears to involve only the determination of enrollment demand that can easily be translated into space allotments and construction costs for various types of facilities, primarily classrooms and laboratories In reality, the physical plants of modern colleges and universities include a wide variety of buildings that serve such diverse functions as classroom and laboratory instruction, library/learning resource center activities, organized research, administration, food service, storage, computerized self-instruction, housing, and athletics Some spaces support instructional activities directly, and are consequently considered to be part of the institution's "capacity space" or just "capacity " Other areas perform a supporting role, however essential, and may or may not be financed directly by State capital outlay appropriations Displays 40 to 42 show the distribution of classroom, teaching laboratory, and "all other" space in the three public systems as it was configured in 1993-94 The reader should note that, while capacity formulas are concerned primarily with classrooms and teaching laboratories, those spaces represent only 43 5, 26 2, and 8 1 percent of the space at the California Community Colleges, the California State University, and the University of California, respectively Thus, it is entirely possible that classroom and teaching laboratory space may be adequate even as large expenditures are required for other types of facilities Further, because no set formulas or standards exist for many types of campus space, it is often difficult to determine the sufficiency of campus facilities Because of this, it is important to view the ensuing discussion as being suggestive of higher education "capacity" more than definitive To put it another way, this discussion of capacity is intended to indicate an order of magnitude, not a precise formulation

DISPLAY 40 Percent Distribution of Nonresident Assignable Square Feet at the California Community Colleges, Fall 1993



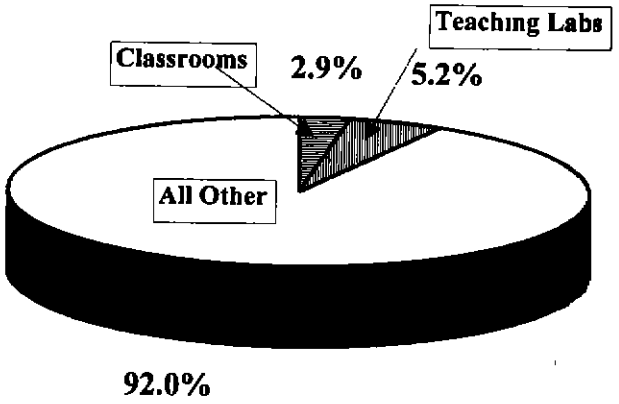
Source. California Community Colleges, five-year plans from 71 individual districts.

DISPLAY 41 Percent Distribution of Nonresident Assignable Square Feet at the California State University, Fall 1994



Source California State University, Space and Facilities Data Base System.

DISPLAY 42 Percent Distribution of Nonresident Assignable Square Feet at the University of California, General Campuses Only, Fall 1993



Source University of California, 1994b

Space standards as a guide to capacity

The capacity of any public institution within California higher education is determined largely by a somewhat arcane branch of facilities analysis known as "space and utilization standards", the current standards were created as "temporary" measures in the early 1970s The Commission studied these standards in depth in the late 1980s (CPEC 1990c) and recommended significant changes that have not yet been implemented Nevertheless, the standards make certain assumptions about reasonable room size, hourly usage, and occupancy levels for classrooms, teaching laboratories, and some other facilities, other Commission studies have examined the adequacy of library space and self-instructional computer laboratories To take one example, it is assumed that classrooms, lecture halls, or seminar rooms will average 15 assignable (usable) square feet per student station, and that each of the stations in those classrooms will be occupied by a student in a scheduled course for 35 hours each week out of a total possible usage of 70 hours (8 a m to 10 p m , Monday through Friday) Through a formula that relates square footage to usage rates, it is possible to determine the enrollment capacity of any institution in the system, at least for the undergraduate level At the graduate level, where students are often involved in research activities, may not attend regularly scheduled lecture or laboratory sessions, or may be writing a dissertation in a library or elsewhere, capacity and utilization are more difficult to determine Accordingly, space formulas are most useful when measuring undergraduate instruction

To determine an institution's or a system's capacity, it is necessary to develop standard measurements not only for institutional space, but also for the number of full-time-equivalent students (FTES) Consequently, while enrollment projections are generally presented in terms of headcount students, as they are in Chapter Three of this report, it is necessary to make certain conversions to account for the differences between full-time and part-time students, and between Fall-term enrollment and academic-year enrollment, when determining an institution's actual enrollment capacity Among the possible indices available, physical capacity is best indicated by Weekly Student Contact Hours (WSCH), which measures the number of hours students are scheduled for both lecture and laboratory courses, and which is easily converted to FTES WSCH totals, which are combined for classrooms and teaching laboratories, provide generally accepted indicators of a college's or university's need for space, and are commonly referred to as the institution's "load "

Although each of the three public systems of higher education in California computes capacity in a different way -- this will become apparent in the discussion below -- there are important similarities in the computations In all three systems of higher education, the amount of space available (the "capacity" determined by the space standards) is compared to the need for space (the "load") in order to determine if additional space should be constructed, or if there is a surplus In the California Community Colleges, this calculation produces a specific number known as the "capacity/load ratio," and while the universities do not use this term specifically, it is nevertheless possible, with data supplied by the systems, to construct parallel indices that can be useful for comparison purposes It is still necessary to attach some caveats to these numbers, particularly for graduate education, but they nevertheless provide a useful indicator for determining existing capacity

The physical capacity of the three public systems

Displays 43 through 54 provide estimates of the current enrollment capacities of the three higher education systems, and project those capacities out to the year 2005-06 based on both the Commission's baseline and low alternative enrollment projections They are derived in different ways, and involve only that aspect of capacity that is measurable by classrooms and teaching laboratories As noted above, they are not intended to provide precise formulations, but to suggest orders of magnitude

California Community Colleges

Each year, the 71 districts that comprise the California Community Colleges submit five-year facilities plans to the Chancellor's Office in February These plans contain a host of data and information about total space on each campus, space type, and recommended new projects In addition, each district computes the capacity-load ratio for classrooms and teaching laboratories, a number that shows whether the actual usage of these facilities is or is not in conformity with the State's existing standards In almost every case in the classroom measurements (67 of the 71 districts), the capacity/load ratio indicates that unused space is present For teaching laboratories, utilization is closer to the standard, with 47 districts showing space surpluses and 24 showing shortages as of the 1993-94 academic year

Overall, the system shows a capacity surplus of 33 6 percent for classrooms, and 9 7 percent for teaching laboratories If utilized perfectly, which is to say at full capacity with a perfect match of students and space throughout the system, these surpluses would provide space for an additional 123,900 FTES as of the 1993-94 academic year

Such a surplus, of course, is partially illusory, for at least four reasons

- First, most of the surplus is derived from the classroom space standards, which are unreachable in any circumstances other than overcrowding That factor alone should reduce the surplus by about 5 percent

- Second, in a system of 106 colleges serving a State population of over 30 million people, there will always be mismatches between population density and space availability The district five-year plans make this abundantly clear, since the capacity-load ratios in some cases indicate that only half of the necessary space is available on a particular campus, while others have twice as much as the standards suggest is required It is impossible to determine the true effect of this element of the "mismatch" phenomenon without a very comprehensive study, but it probably creates a reduction from perfect efficiency of at least a fourth of the 123,900 FTES surplus

- The third factor is supporting facilities Even if a campus has surpluses in the types of space that measure capacity (classrooms and teaching laboratories), it may not have comparable surpluses in supporting spaces such as learning resource centers, faculty offices, administrative offices, or food service facilities In addition, a college may be at or near its master plan capacity, and may not have any available land on which to construct the additional supporting facilities In such cases, the apparent "surplus" in instructional space is nonexistent and analogous to the situation at the University of California's Berkeley and Los Angeles campuses discussed below Unfortunately, there is no way to estimate the effect of this factor at the present time, but it probably represents at least 10 percent of the surplus

- Finally, both instructional and support space may be in such poor condition as to be unusable, which is becoming an increasing problem in all three public systems due to the continuing deferral of maintenance expenditures As with the third factor, without a comprehensive assessment of the condition of community college facilities, there is no way to estimate the enrollment effect of rooms or buildings that are, or soon will be, unusable This factor of inadequate or nonexistent supporting facilities probably consumes another five to ten percent of the surplus

Overall, the Commission believes it is reasonable to estimate that the technical excess capacity of the community college system -- the 123,900 FTES noted above -- should be reduced by about a third to between 80,000 and 85,000 FTES For the sake of the array shown in Displays 43 through 46, a mid-point figure of 82,500 has been chosen

DISPLAY 43 Projected Capacity and Enrollment in the California Community Colleges, 1993-94 to 2005-06 (Baseline Enrollment Projection)

Year[1]	Assignable Square Feet (ASF) Lecture (000s)	Assignable Square Feet (ASF) Laboratory (000s)	Technical WSCH Capacity per Legislative Standard Lecture[2] (000s)	Technical WSCH Capacity per Legislative Standard Laboratory[3] (000s)	Capacities, Loads, and Space Surpluses or Deficiencies WSCH Load[4] Lecture (000s)	WSCH Load[4] Laboratory (000s)	WSCH Capacity in Excess of Load Lecture (000s)	WSCH Capacity in Excess of Load Laboratory (000s)	WSCH Capacity in Excess of Load Total[5] (000s)	FTES Capacity in Excess of Load Lecture (000s)	FTES Capacity in Excess of Load Laboratory (000s)	FTES Capacity in Excess of Load Total (000s)
1993-94	4,602 7	9,506 4	10,728 9	3,588 8	8,851 9	3,607 5	1,877 0	-18 7	1,238 9	125 1	-1 2	82 6
1994-95	4,602 7	9,506 4	10,728 9	3,588 8	8,827 9	3,587 0	1,901 0	1 7	1,268 4	126 7	0 1	84 6
1995-96	4,602 7	9,506 4	10,728 9	3,588 8	8,962 3	3,653 6	1,766 6	-64 9	1,134 5	117 8	-4 3	75 6
1996-97	4,602 7	9,506 4	10,728 9	3,588 8	9,037 5	3,720 8	1,691 4	-132 0	1,039 6	112 8	-8 8	69 3
1997-98	4,602 7	9,506 4	10,728 9	3,588 8	9,354 3	3,813 5	1,374 6	-224 8	766 5	91 6	-15 0	51 1
1998-99	4,602 7	9,506 4	10,728 9	3,588 8	9,577 1	3,916 8	1,151 8	-328 1	549 1	76 8	-21 9	36 6

	Total ASF[6]	Real WSCH Capacity	WSCH Capacity in WSCH Load[7]	Excess of Standard	FTES Capacity in Excess of Standard[8]
1999-00	14,109,135	13,698,314	13,729,509	-31,195	-2,079 7
2000-01	14,109,135	13,698,314	14,375,853	-677,539	-45,169 3
2001-02	14,109,135	13,698,314	14,577,237	-878,923	-58,594 9
2002-03	14,109,135	13,698,314	14,817,294	-1,118,980	-74,598 7
2003-04	14,109,135	13,698,314	15,038,802	-1,340,488	-89,365 9
2004-05	14,109,135	13,698,314	15,300,792	-1,602,478	-106,831 9
2005-06	14,109,135	13,698,314	15,499,530	-1,801,216	-120,081 1

1 Data for 1999-00 were omitted in several of the five-year plans, making strict comparisons with other years statistically unreliable

2 Lecture capacities based on 429 Assignable Square Feet per Weekly Student Contact Hour

3 Laboratory capacities based on various ASF per WSCH calculations depending on the type of laboratory

4 Load figures for 1993-94 to 1998-99 are taken from the district five-year plans, then adjusted to reflect the CPEC enrollment projections

5 Because of the "mismatch problem," discussed in the text, technical capacity has been reduced by one third

6 Total square footage is assumed to be static throughout the projection

7 Load figures for 1999-00 to 2005-06 are derived by multiplying the CPEC headcount enrollment projection by 9 0, the projected average number of WSCH per student in the community college system

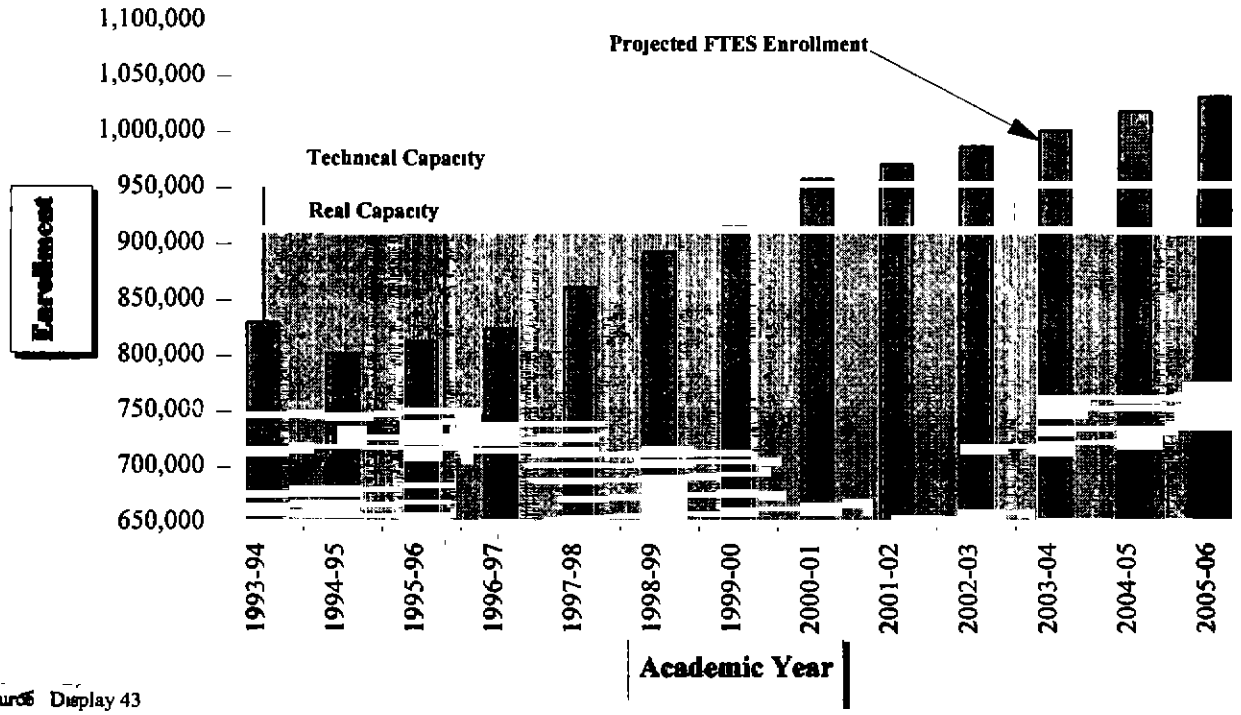
8 WSCH divided by 15

Source Chancellor's Office, California Community Colleges, CPEC Staff Analysis

An excess capacity of this magnitude -- the equivalent of about eight mature campuses -- is not really surprising Since its all-time enrollment high in 1991, the community colleges lost 138,696 students (headcount) through Fall 1993 At an average contact hour load of 8 98 WSCH per student (the 1993 average), that translates into a loss of 83,033 FTES, which is approximately the amount of the "real" space surplus the Commission believes exists in the system Given the Commission's current enrollment projections, which show continued enrollment losses in Fall 1994, that surplus may have grown by an additional 5,000 to 10,000 FTES

Existing space surpluses should serve student needs in most community college

DISPLAY 44 Comparison of Capacity and Enrollment in the California Community Colleges, 1993-94 to 2005-06 (Baseline Enrollment Projection)



Source: Display 43

districts into the late 1990s, yet the systemwide excess will probably not last much beyond that Under the baseline enrollment projection, as indicated in Displays 43 and 44, the existing quantity of space -- assuming most of it continues to be physically and educationally functional -- will not be sufficient to house the projected enrollment demand by the turn of the century Under the low alternative, shown in Displays 45 and 46 on pages 73 and 74, a net systemwide expansion will be needed by 2002-03 Many districts, of course, will have space shortages before then, in part because of strong growth, and in part because of the probability that the classroom standards -- which determine most of any college's potential capacity -- are unreachable except under conditions of overcrowding Even if the existing standards can be met, however, which has never happened in the entire history of the community college system, and may have happened only rarely in the case of individual colleges, it will still be necessary to create space for another 120,000 full-time-equivalent students (comparable to about 200,000 headcount students) by 2005-06 In Chapter Five, which discusses cost estimates, it is assumed that 20,000 FTES of this enrollment demand will be served by greater efficiencies and the use of technology

The California State University

The California State University reports physical capacity in terms of full-time-equivalent students (FTES) each year as part of its capital outlay budget request The

DISPLAY 45 Projected Capacity and Enrollment in the California Community Colleges, 1993-94 to 2005-06 (Low Alternative Enrollment Projection)

	Assignable Square Feet (ASF)		Technical WSCH Capacity per Legislative Standard		Capacities, Loads, and Space Surpluses or Deficiencies							
					WSCH Load[4]		WSCH Capacity in Excess of Load			FTES Capacity in Excess of Load		
Year[1]	Lecture (000s)	Laboratory (000s)	Lecture[2] (000s)	Laboratory[3] (000s)	Lecture (000s)	Laboratory (000s)	Lecture (000s)	Laboratory (000s)	Total[5] (000s)	Lecture (000s)	Laboratory (000s)	Total (000s)
1993-94	4,602 7	9,506 4	10,728 9	3,588 8	8,851 9	3,607 5	1,877 0	-18 7	1,237 7	125 1	-1 2	82 5
1994-95	4,602 7	9,506 4	10,728 9	3,588 8	8,827 9	3,587 0	1,901 0	1 7	1,268 4	126 7	0 1	84 6
1995-96	4,602 7	9,506 4	10,728 9	3,588 8	8,962 3	3,653 6	1,766 6	-64 9	1,134 5	117 8	-4 3	75 6
1996-97	4,602 7	9,506 4	10,728 9	3,588 8	9,037 5	3,720 8	1,691 4	-132 0	1,039 6	112 8	-8 8	69 3
1997-98	4,602 7	9,506 4	10,728 9	3,588 8	9,354 3	3,813 5	1,374 6	-224 8	766 5	91 6	-15 0	51 1
1998-99	4,602 7	9,506 4	10,728 9	3,588 8	9,577 1	3,916 8	1,151 8	-328 1	549 1	76 8	-21 9	36 6

	Total ASF[6]	Real WSCH Capacity	WSCH Capacity in WSCH Load[7]	Excess of Standard	FTES Capacity in Excess of Standard[8]
1999-00	14,109,135	13,698,314	13,113,216	585,098	39,006 5
2000-01	14,109,135	13,698,314	13,333,356	364,958	24,330 5
2001-02	14,109,135	13,698,314	13,599,360	98,954	6,596 9
2002-03	14,109,135	13,698,314	13,879,647	-181,333	-12,088 9
2003-04	14,109,135	13,698,314	14,138,757	-440,443	-29,362 9
2004-05	14,109,135	13,698,314	14,439,573	-741,259	-49,417 3
2005-06	14,109,135	13,698,314	14,705,874	-1,007,560	-67,170 7

1 Data for 1999-00 were omitted in several of the five-year plans, making strict comparisons with other years statistically unreliable

2 Lecture capacities based on 429 Assignable Square Feet per Weekly Student Contact Hour

3 Laboratory capacities based on various ASF per WSCH calculations depending on the type of laboratory

4 Load figures for 1993-94 to 1998-99 are taken from the district five-year plans, then adjusted to reflect the CPEC enrollment projections

5 Because of the "mismatch problem," discussed in the text, technical capacity has been reduced by one third

6 Total square footage is assumed to be static throughout the projection

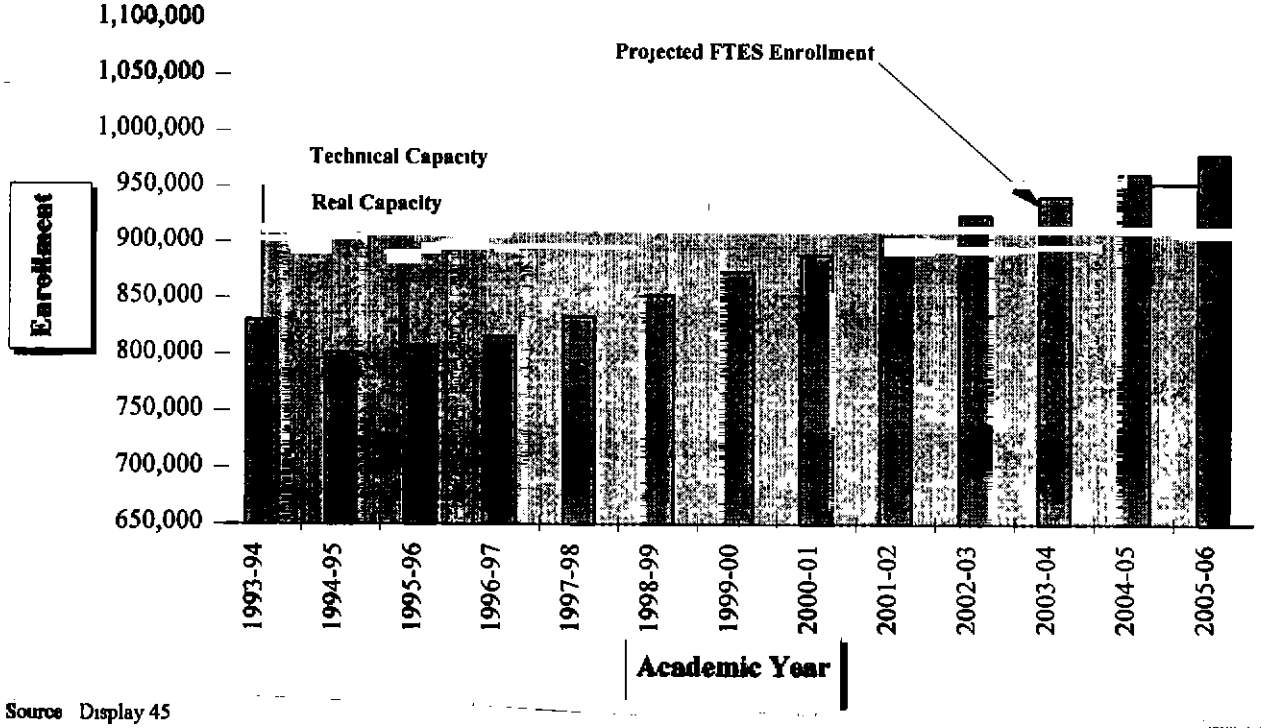
7 Load figures for 1999-00 to 2005-06 are derived by multiplying the CPEC headcount enrollment projection by 9 0, the projected average number of WSCH per student in the community college system

8 WSCH divided by 15

Source Chancellor's Office, California Community Colleges, CPEC Staff Analysis

most recent submission indicates that there is room, based on an analysis of the space standards, for 261,196 FTES in that system for 1994-95 That number does not include California State University, Monterey Bay, which will come on line in Fall 1995, and which is projected to add another 5,231 FTES by the final year of the projection, 2005-06 (CPEC, 1994a) The capacity figures include projects that are funded but not yet completed, so the actual space available at the present time is somewhat less than reported Of the 20 campuses in the system, 21 with Monterey Bay (and excluding the specialized California Maritime Academy), the Chancellor's Office reports that 15 have excess instructional space and 5 have

DISPLAY 46 Projected Capacity and Enrollment in the California Community Colleges, 1993-94 to 2005-06 (Low Alternative Enrollment Projection)



Source Display 45

space shortages Overall, the system shows space for 8 6 percent more FTES than are expected to be enrolled in the current year

Each year, the State University compiles a detailed classroom and teaching laboratory utilization report that measures activity in classrooms and teaching laboratories, and compares that activity to the existing space standards (CSU, 1989 to 1994b) In a situation somewhat analogous to both the University of California's and the California Community Colleges' experience discussed elsewhere, the classroom standards have never been met on a systemwide basis since the State University began to keep records in 1969, although some of the system's most overcrowded campuses have met the standard on occasion For example, in the past six years, the Long Beach campus met the standard four times, although it fell below it during the past two years reported (Fall 1991 and Fall 1992) when several hundred additional teaching stations came on line at the same time that enrollments declined San Luis Obispo had a similar experience, it could not meet the standard in 1992, and for the same reasons Many campuses have never met it, but overall, and based on the 24-year historical record, the standard may have created an artificial expectation of the number of students that can be enrolled

As noted previously, the "mismatch" problem invariably produces a situation where there is seldom a perfect fit between students who desire to attend and institutions that have space to enroll them Some campuses are highly popular and must turn students away, others have large amounts of excess space but insufficient students

Still others may have sufficient classroom and laboratory space, but shortages in other types of facilities A few may appear to have capacity according to the space standards, particularly for classrooms, but cannot use that capacity fully because of scheduling problems, student unwillingness to attend during off hours, a similar unwillingness from faculty members, or poor fits between room size and course section size Campus administrators have often attempted to schedule courses, even required courses, at unpopular times -- usually in the afternoons -- but have usually been forced to abandon the effort to improve utilization because the courses remain undersubscribed When this occurs, the resulting small class sizes increase faculty costs, ultimately confronting administrators with the choice of canceling the course or exceeding the budget, in virtually every case, it is the operating budget that receives the higher priority It is for this reason that any analysis of utilization or space standards must take the operations budget into account

As great a barrier as these problems pose to more effective facilities utilization, they are virtually impossible to quantify Nevertheless, a conservative estimate of the effect of the mismatch problem is that it reduces perfect utilization by 5 to 10 percent, depending on the campus Accordingly, where the State University reports a technical physical capacity of 261,196 FTES, the Commission believes its real capacity falls more realistically within a range of 245,000 to 250,000 FTES For the purposes of this report, and to provide a more conservative estimate, a figure of 250,000 FTES is used, which is 4 3 percent under the listed capacity

The data reported by the State University, as adjusted for the mismatch problem, and the enrollment projections developed by the Commission, are shown in Displays 47 through 50 These displays show relatively slow growth throughout the remainder of the 1990s, after which the effects of "Tidal Wave II," the dramatic enrollment increases projected for the early years of the next decade, begin to be felt The Commission's baseline enrollment projection indicates that the State University will add only 14,774 academic-year FTES between 1993-94 and 1999-00, which suggests that the existing physical plant will contain enough classroom and laboratory capacity to enroll all qualified students, although some of these will doubtless have to be redirected from the campus of their first choice Between 1999-00 and 2005-06, however, enrollments are projected to increase by another 48,107 FTES, which will rapidly place the State University system in a space deficit position Even with the addition of the new campus in Monterey Bay, which accounts for the gradual capacity increase shown in the four displays, and with strong classroom and teaching laboratory utilization consistent with some of the most stringent utilization standards in the nation, the State University will need to find room for another 47,547 FTES by 2005-06 Without the Monterey Bay campus, space would be needed for 52,778 FTES Those numbers suggest the need for considerable expansion on existing campuses, the construction of one or two additional campuses beyond the Monterey Bay development, or some combination of both

If the low alternative enrollment projection numbers are used (Displays 49 and 50), the situation improves, but only slightly Growth between 1993-94 and 1999-

DISPLAY 47 Projected Capacity and Enrollment at the California State University, 1993-94 to 2005-06 (Baseline Enrollment Projection)

Year	Fall Term HC	Fall Term FTES	Academic Year (AY) FTES	AY FTES Technical Physical Capacity[1,2]	Technical Excess FTES Capacity	AY FTES Real Physical Capacity[1,2]	Real Excess FTES Capacity
1993-94	325,640	245,148	239,897	261,196	21,299	250,000	10,103
1994-95	323,208	243,317	238,106	261,196	23,090	250,000	11,894
1995-96	323,574	243,592	238,375	261,829	23,454	250,633	12,258
1996-97	327,542	246,580	241,298	262,209	20,911	251,013	9,715
1997-98	333,894	251,361	245,978	262,603	16,625	251,407	5,429
1998-99	340,146	256,068	250,584	263,000	12,416	251,804	1,220
1999-00	345,694	260,245	254,671	263,400	8,729	252,204	-2,467
2000-01	354,244	266,681	260,970	263,791	2,821	252,595	-8,375
2001-02	363,987	274,016	268,147	264,207	-3,940	253,011	-15,136
2002-03	374,717	282,094	276,052	264,640	-11,412	253,444	-22,608
2003-04	388,556	292,512	286,247	265,194	-21,053	253,998	-32,249
2004-05	400,021	301,143	294,693	265,761	-28,932	254,565	-40,128
2005-06	410,996	309,405	302,778	266,427	-36,351	255,231	-47,547

1 From 1995-96 to 2005-06, additional FTES are added to the capacity figures to reflect the opening of California State University, Monterey Bay Those additions are as follows

1995-96	633	1999-00	2,204	2003-04	3,998
1996-97	1,013	2000-01	2,595	2004-05	4,565
1997-98	1,407	2001-02	3,011	2005-06	5,231
1998-99	1,804	2002-03	3,444		

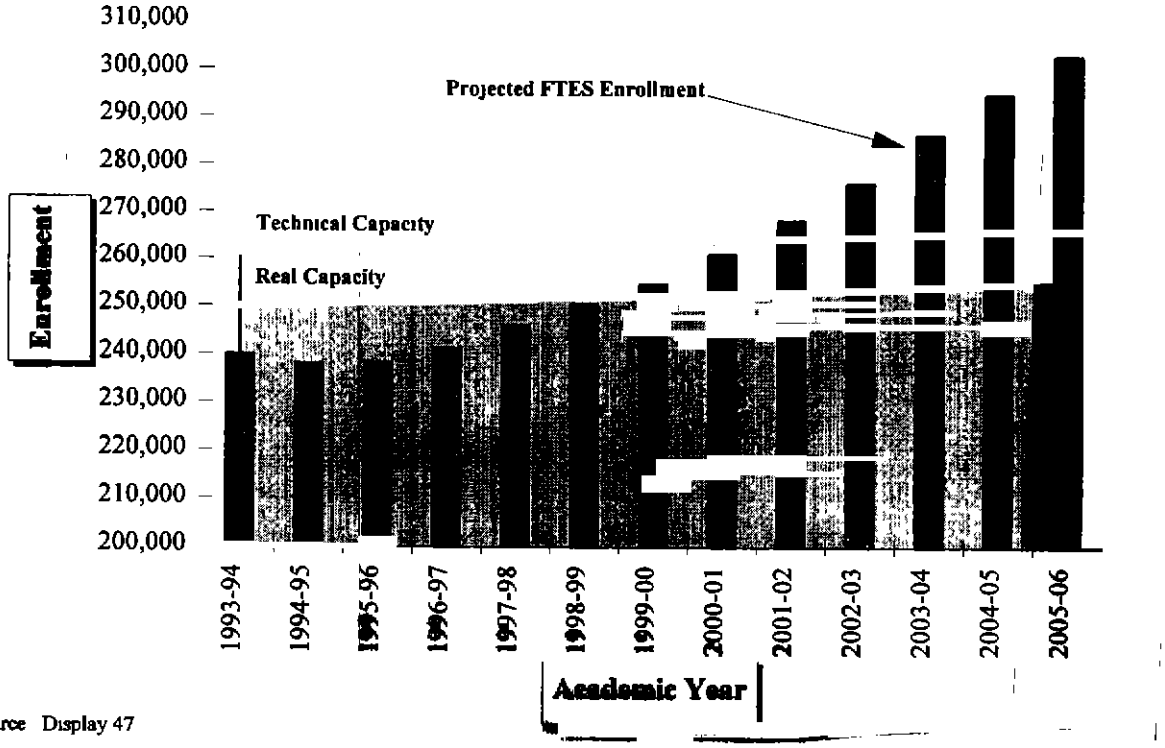
2 See text for an explanation of the difference between "technical physical capacity" and "real physical capacity"

Source CSU 1994, CPEC staff analysis

00 is projected to be 5,795 FTES, and between 1999-00 and 2005-06, 37,101 FTES In the baseline projection, the State University will need additional space by 1999-00, if the low alternative is closer to reality, space will be needed by 2001-02

Some of the needed capacity may be constructed in the next five years The State University's most recent Five-Year Plan anticipates an expansion of capacity, if funds are provided, of 16,951 FTES by 2000-01 If built, that would leave a real gap for the next five years of 30,596 FTES, a number that again assumes normal enrollment expansion at Monterey Bay Some CSU campuses are currently at their master plan ceilings, but there are enough campuses with room to expand -- and this includes several new institutions that have already been approved by the Commission and are under construction (e g Contra Costa, San Marcos) or, in the case

DISPLAY 48 Comparison of Capacity and Enrollment in The California State University, 1993-94 to 2005-06 (Baseline Enrollment Projection)



Source Display 47

of the planned facilities in Ventura County, have recently been acquired -- that the State University should have sufficient space to meet projected enrollments over the next ten years, again with the considerable caveat that sufficient capital outlay funding can be provided to construct facilities on existing campuses

University of California

Physical capacity and load at the University of California are more difficult to compute than at the other two public systems, and probably cannot be computed at the graduate level at all, since so much graduate activity takes place outside of regularly scheduled classroom and laboratory activities At the undergraduate level, an indication of capacity can be computed by relying on the University's biennial utilization report as well as the *Instruction and Research Space Summary and Analysis* report (UC 1994c and 1994d) Both of these reports were submitted to the Legislative Analyst, the Department of Finance, and the Commission in November 1994 The utilization report shows the frequency of classroom and teaching laboratory usage at the University's eight general campuses, and is submitted in response to the Commission's recommendation in its space standards report referred to above (CPEC 1990c) Based on an analysis of the survey as of the Fall 1993 term, the University has excess capacity available, based on the formulas in the existing standards Specifically, these data suggest that the University should be able to accommodate many thousands of additional students within existing facilities, and

DISPLAY 49 Projected Capacity and Enrollment at the California State University, 1994-95 to 2005-06 (Low Alternative Enrollment Projection)

Year	Fall Term HC	Fall Term FTES	Academic Year (AY) FTES	AY FTES Technical Physical Capacity[1,2]	Technical Exces FTES Capacity	AY FTES Real Physical Capacity[1,2]	Real Excess FTES Capacity
1993-94	325,640	245,148	239,897	261,196	21,299	250,000	10,103
1994-95	321,679	242,166	236,979	261,196	24,217	250,000	13,021
1995-96	320,616	241,366	236,196	261,829	25,633	250,633	14,437
1996-97	323,155	243,277	238,067	262,209	24,142	251,013	12,946
1997-98	326,672	245,925	240,657	262,603	21,946	251,407	10,750
1998-99	330,089	248,497	243,175	263,000	19,825	251,804	8,629
1999-00	333,506	251,069	245,692	263,400	17,708	252,204	6,512
2000-01	337,060	253,745	248,310	263,791	15,481	252,595	4,285
2001-02	345,802	260,326	254,750	264,207	9,457	253,011	-1,739
2002-03	355,272	267,455	261,727	264,640	2,913	253,444	-8,283
2003-04	365,574	275,211	269,316	265,194	-4,122	253,998	-15,318
2004-05	375,054	282,347	276,300	265,761	-10,539	254,565	-21,735
2005-06	383,867	288,982	282,793	266,427	-16,366	255,231	-27,562

1 From 1995-96 to 2005-06, additional FTES are added to the capacity figures to reflect the opening of California State University, Monterey Bay Those additions are as follows

1995-96	633	1999-00	2,204	2003-04	3,998
1996-97	1,013	2000-01	2,595	2004-05	4,565
1997-98	1,407	2001-02	3,011	2005-06	5,231
1998-99	1,804	2002-03	3,444		

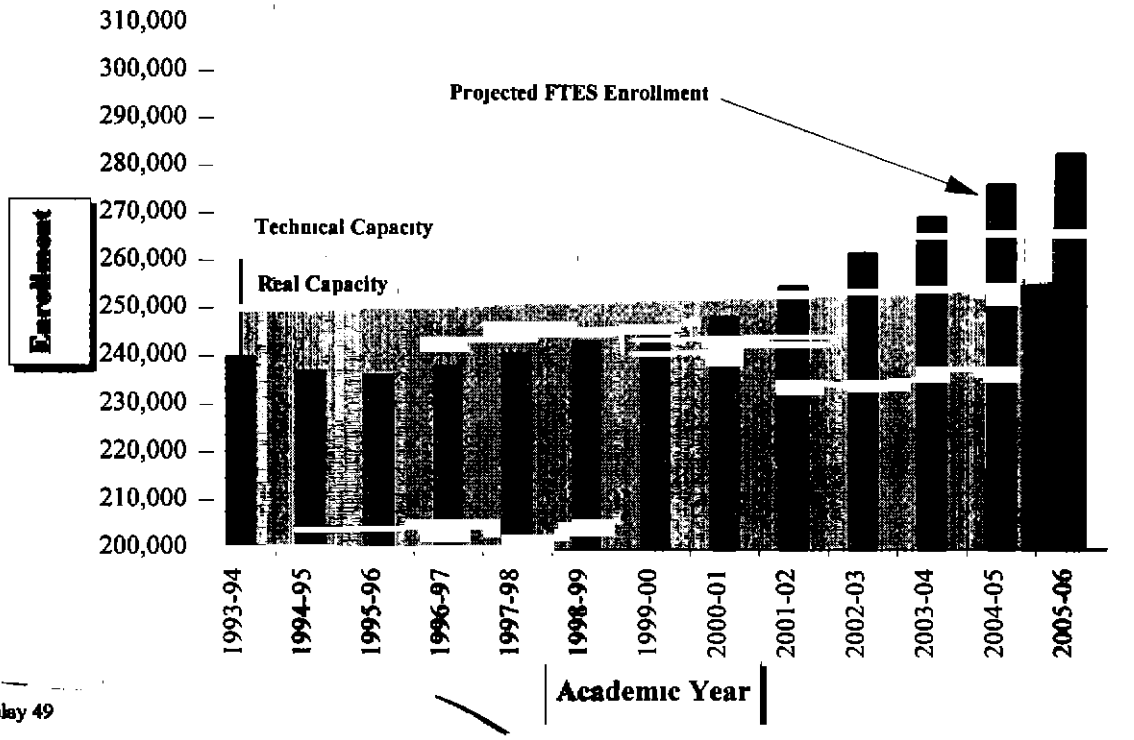
2 See text for an explanation of the difference between "technical physical capacity" and "real physical capacity"

Source CSU 1994, CPEC staff analysis.

that the University's physical plant should not need to be expanded until 2001-02 Closer examination, however, shows a markedly different situation

Of the excess capacity suggested by the utilization analysis, almost all (about 17,200 FTES or 92 2 percent of the total) is at the Berkeley and Los Angeles campuses, which are already at or above their Long-Range Development Plan (LRDP) ceilings The utilization of lecture and teaching laboratory space at those two campuses is demonstrably poor -- classroom utilization is reported to be at only 63 8 percent of the State standard, teaching laboratory utilization at only 69 2 percent -- yet it is inconceivable that another 7,800 FTES could be added to the Berkeley campus, and another 9,400 FTES to UCLA, as the utilization report suggests It is

DISPLAY 50 Projected Capacity and Enrollment at The California State University, 1993-94 to 2005-06 (Low Alternative Enrollment Projection)



Source Display 49

another example of the "mismatch problem," the fact that available facilities never mesh perfectly with enrollment demand As Display 42 shows, classrooms and teaching laboratories represent only 8 1 percent of the total space on the University's eight general campuses Yet even if that space were to be fully utilized, many other facilities would have to be built to enroll additional students These spaces would include library facilities, student housing, food service, faculty offices, research space, self-instructional computer laboratories, administrative facilities, and maintenance yards, among others Thus, and as shown in Displays 51 through 54, the University's "Real Capacity" is quite different from its "Technical Capacity "

The University's other six general campuses, taken as a group, have a total instructional space surplus of only about 1,000 FTES, yet three of the six campuses have classroom and teaching laboratory space deficits and one, Riverside, is approximately at the standard Leaving Berkeley and UCLA out of the equation on the grounds that they have no room to expand when the entire physical plant is taken into consideration, and assuming full utilization at those campuses with space surpluses, the data still suggest a need to have new classrooms and teaching laboratories in place almost immediately to meet anticipated enrollment demand, as estimated by the Commission's baseline projection By the final year of that projection, 2005-06, there is a deficit of 28,116 FTES at the six campuses that are not yet at their LRDP ceilings In the low alternative enrollment projection, there is sufficient space in the system until 1998-99, after which space deficits grow to

DISPLAY 51 Projected Capacity and Enrollment at the University of California, 1993-94 to 2005-06 (Baseline Enrollment Projection)

Year	Total Current Capacity: Weekly Student Contact Hours[1]	Total Current Capacity: Full-Time-Equivalent Students[2]	Total Projected Load: Weekly Student Contact Hours[3]	Total Projected Load: Full-Time-Equivalent Students[4]	Excess Capacity: WSCH	Excess Capacity: FTES
1993-94	2,050,980	154,152	2,025,896	152,323	25,084	1,829
1994-95	2,050,980	154,152	2,046,590	153,879	4,391	273
1995-96	2,050,980	154,152	2,060,116	154,896	-9,136	-744
1996-97	2,050,980	154,152	2,077,319	156,189	-26,339	-2,037
1997-98	2,050,980	154,152	2,096,348	157,620	-45,368	-3,468
1998-99	2,050,980	154,152	2,115,427	159,055	-64,446	-4,903
1999-00	2,050,980	154,152	2,134,642	160,499	-83,662	-6,347
2000-01	2,050,980	154,152	2,178,327	163,784	-127,346	-9,632
2001-02	2,050,980	154,152	2,227,650	167,492	-176,670	-13,340
2002-03	2,050,980	154,152	2,278,936	171,349	-227,956	-17,197
2003-04	2,050,980	154,152	2,328,732	175,093	-277,752	-20,941
2004-05	2,050,980	154,152	2,379,310	178,895	-328,330	-24,743
2005-06	2,050,980	154,152	2,424,162	182,268	-373,182	-28,116

1 Weekly Student Contact Hour (WSCH) capacity determined by multiplying classroom stations by the current utilization standard of 35 hours per week, than adjusted to reflect the fact that UC uses less than the 15 assignable square feet per station allowed by the standard In addition, 95 percent of the excess capacity at the Berkeley and Los Angeles campuses have been deleted, since both are effectively at their master plan enrollment ceilings

2 Weekly Student Contact Hours divided by the systemwide contact hours per FTE student (13 3)

3 Full-time-equivalent student multiplied by the systemwide contact hours per FTE student (13 3)

4 CPEC headcount projection adjusted for the past five-year average difference between Fall headcount and annualized FTES

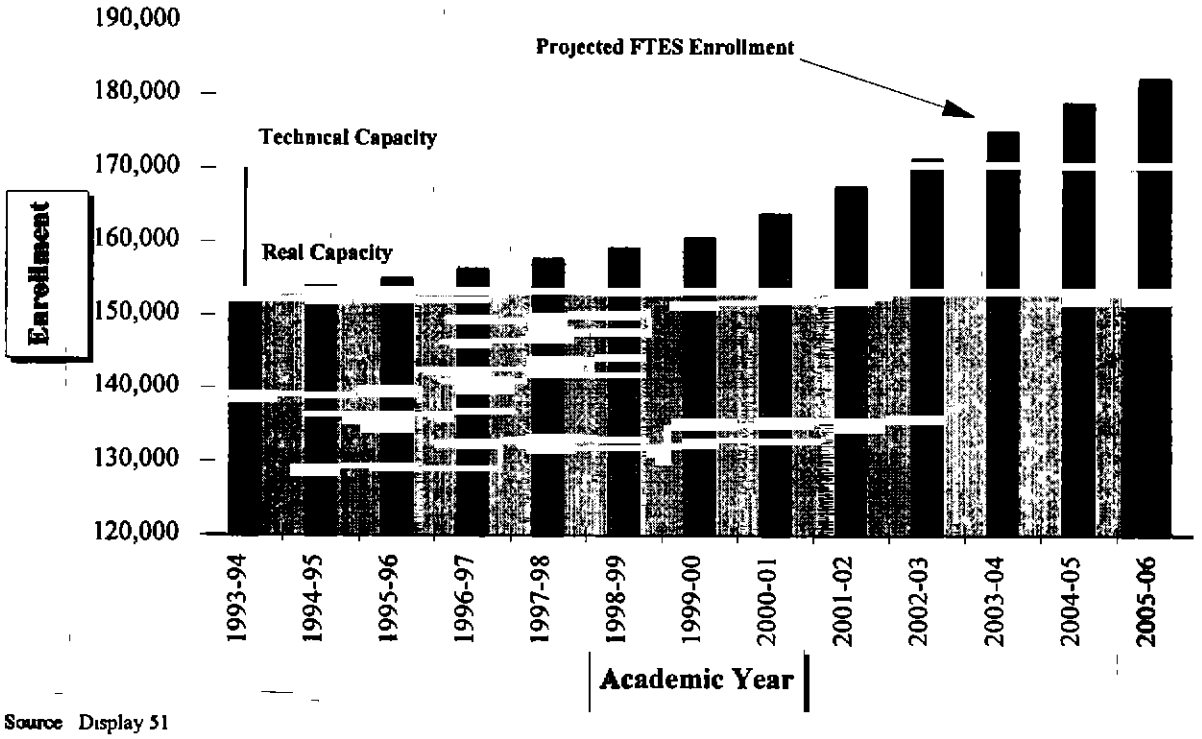
Source UC Office of the President, Space Analysis Tables and Fall 1993 utilization analysis, CPEC staff analysis

18,924 by 2005-06 For the sake of argument, it could be assumed that Berkeley and UCLA could each enroll another thousand students, but even then, the number of spaces needed on the other campuses will remain very large Given capital project lead times, which can cover five years between ground breaking and occupancy, plus additional time for planning, the data suggest a need for immediate capital outlay funding, particularly for the construction of capacity space (i e classrooms and teaching laboratories) This immediacy remains true even if the low alternative enrollment projection applies

Independent colleges and universities

The Association of Independent California Colleges and Universities (AICCU) has advised the Commission that there is sufficient existing capacity to enroll some 40,000 to 60,000 additional students Usage of this space, of course, depends heavily on the availability of student financial aid In the Commission's *The Challenge of the Century* report -- as well as earlier in *Higher Education at the Crossroads* -- it is suggested that full funding of the Cal Grant program could actually save the State money in both capital and support costs (CPEC 1990a, p 7, 1995, p 6) While the details of this idea have not been fully discussed, it does show some promise for the relief of enrollment pressures at the State University and the University, particularly in the late 1990's and the first five years of the new century

DISPLAY 52 Projected Capacity and Enrollment at the University of California, 1993-94 to 2005-06 (Baseline Enrollment Projection)



Source Display 51

DISPLAY 53 Projected Capacity and Enrollment at the University of California, 1993-94 to 2005-06 (Low Alternative Enrollment Projection)

Year	Total Current Capacity: Weekly Student Contact Hours[1]	Total Current Capacity: Full-Time-Equivalent Students[2]	Total Projected Load: Weekly Student Contact Hours[3]	Total Projected Load: Full-Time-Equivalent Students[4]	Excess Capacity: WSCH	Excess Capacity: FTES
1993-94	2,050,980	154,152	2,025,896	152,323	25,084	1,829
1994-95	2,050,980	154,152	2,027,002	152,406	23,979	1,746
1995-96	2,050,980	154,152	2,021,810	152,016	29,170	2,136
1996-97	2,050,980	154,152	2,020,282	151,901	30,698	2,251
1997-98	2,050,980	154,152	2,020,580	151,923	30,400	2,229
1998-99	2,050,980	154,152	2,020,878	151,946	30,102	2,206
1999-00	2,050,980	154,152	2,064,488	155,225	-13,508	-1,073
2000-01	2,050,980	154,152	2,098,162	157,757	-47,181	-3,605
2001-02	2,050,980	154,152	2,140,902	160,970	-89,922	-6,818
2002-03	2,050,980	154,152	2,187,742	164,492	-136,761	-10,340
2003-04	2,050,980	154,152	2,233,351	167,921	-182,371	-13,769
2004-05	2,050,980	154,152	2,271,906	170,820	-220,926	-16,668
2005-06	2,050,980	154,152	2,301,915	173,076	-250,935	-18,924

1 Weekly Student Contact Hour (WSCH) capacity determined by multiplying classroom stations by the current utilization standard of 35 hours per week, than adjusted to reflect the fact that UC uses less than the 15 assignable square feet per station allowed by the standard In addition, 95 percent of the excess capacity at the Berkeley and Los Angeles campuses have been deleted, since both are effectively at their master plan enrollment ceilings

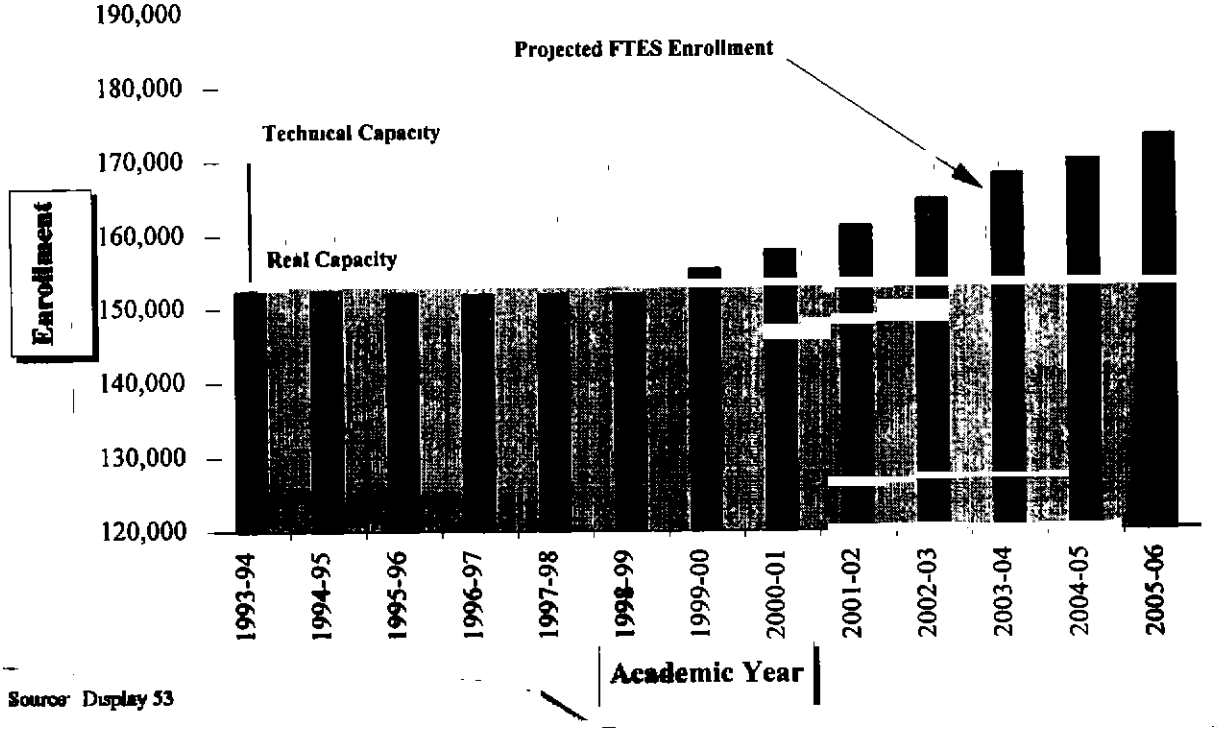
2 Weekly Student Contact Hours divided by the systemwide contact hours per FTE student (13 3)

3 Full-time-equivalent student multiplied by the systemwide contact hours per FTE student (13 3)

4 CPEC headcount projection adjusted for the past five-year average difference between Fall headcount and annualized FTES

Source UC Office of the President, Space Analysis Tables and Fall 1993 utilization analysis, CPEC staff analysis

DISPLAY 54 Projected Capacity and Enrollment at the University of California, 1993-94 to 2005-06 (Low Alternative Enrollment Projection)



Source: Display 53

5 Capital Outlay Costs for Maintenance and Expansion

Introduction

The preceding discussion suggests that all three of the State's public systems of higher education are in need of new facilities In the Community Colleges, space will be needed in some districts immediately, with the system showing an overall deficit by the end of the decade under the baseline enrollment projection In the State University, there will be shortages at some campuses almost immediately, with the system moving to a net deficit by the end of the decade Without the acquisition of the Monterey Bay campus, the system would be in deficit a year earlier, and it can be expected that in the years beyond 2005, the importance and value of the Fort Ord conversion to the system's 21st general campus at Monterey Bay will only increase At the University of California, small instructional space deficits currently exist on three campuses (Davis, Santa Barbara, and Santa Cruz, with Santa Cruz presenting the most serious problem), but a collective deficit will soon exist on the six general campuses where expansion is still possible (all but Berkeley and Los Angeles) Overall, by 2005-06, the capacity analysis presented in Chapter Four suggests the need for new facilities, either on existing or new campuses or centers, for 120,081 FTES in the California Community Colleges, 47,547 FTES at the California State University, and 28,116 FTES at the University of California This total of 195,744 FTES represents 66 2 percent of the total expected enrollment expansion of 295,488 FTES between 1993-94 and 2005-06

If the low alternative enrollment projection turns out to be closer to reality, the need for expansion will be much reduced The California Community Colleges will need to build space for 67,171 FTES In the California State University, there will be a need for a capital expansion sufficient to enroll another 27,562 FTES At the University of California, the space deficit will be 18,924 FTES This comes to a total of 113,657 FTES in new capacity compared to the baseline projection of 195,744 FTES

In *Higher Education at the Crossroads*, the Commission developed estimates of the cost of new facilities, and projected those estimates 15 years into the future At the time, the Commission assumed that some of the growth would be accommodated on new campuses and off-campus centers, and accordingly projected start-up and buildout costs for each type of facility, including a factor for land acquisition Those estimates are shown in Display 55 on page 86, and are based on an analysis that was presented in the background papers to the *Crossroads* effort (CPEC 1990b, pp 59-98) In addition, as shown in Display 56, the 1990 report also projected annual capital outlay costs from 1990 to 2005, concluding that about $500 million per year for the three public systems combined would be required to meet enrollment growth over that 15-year period

DISPLAY 55 Cost Estimates Contained in "Higher Education at the Crossroads" (CPEC 1990a) for New Campuses and Off-Campus Centers in California Public Higher Education in 1990 Dollars

System	Size of Campus (FTE Students)	Cost per Campus
California Community Colleges		
Start-Up (Off-Campus Center)[1]	1,150	$12,198,050
Total Cost at Build-Out (CCC Estimate)	8,000	$100,600,000
California State University		
Start-Up (New Campus)	2,000	$63,533,000
Total Cost at Build-Out (CSU Estimate)	25,000	$526,719,000
Total Cost at Build-Out (CPEC Estimate)[2]	25,000	$597,827,598
University of California		
Start-Up (New Campus)	3,520	$209,221,140
Total Cost at Build-Out (UC Estimate)	25,000	$2,445,021,304
Total Cost at Build-Out (CPEC Estimate)[2]	25,000	$2,329,192,860

1 Community colleges start-up estimates excluded land acquisition costs which were estimated to range between $0 (donated) and $400,000 per acre

2 The Commission's 1990 cost estimates were based on historic actuals for representative campuses, adjusted for inflation and estimated space deficiencies This included funding for projects traditionally paid for with non-state funds. Estimates assumed a 30-year effective life for University facilities, 50 years for State University facilities, and 50 years for community college facilities University costs and Commission estimates of University costs included auxiliary enterprises not usually financed through State funds.

Source CPEC, 1990a

California Community Colleges

The most recent compilation of five-year plans for the California Community Colleges is now over a year old A new summary has recently become available, but there has been insufficient time to consider it for this report The proposed budget for 1995-96 has been available for some time, however, as submitted to the Board of Governors in September 1994, and requests $270,957,000 For subsequent years, through 1999-00, an estimate of the funding the community colleges think necessary may be derived by examining the most recent three compilations of district five-year plans These are presented in Display 57 on page 88, and show that the final four years of the projections average $517 9 million in annual expenditures

As noted earlier, the Commission believes there is a "real" surplus of capacity space (classrooms and teaching laboratories) -- real as compared to the theoretical capacity generated by the space standards, which fail to account for various factors such as space and population mismatches and other factors -- of about 82,500 FTES within the community college system as of the present day The Commission's enrollment projections suggest that such a surplus, assuming the facilities continue to be maintained in their present or better condition, should obviate the need to construct classrooms and laboratories in most districts through 1999-00 Some of the most rapidly growing districts (e g Antelope Valley, Kern, Sierra, Solano County, State Center), of course, will still need additional space in spite of the systemwide surplus Over the subsequent five years, however, it will be necessary to provide space for the instruction of another 120,000 FTES Some of these students will doubtless be educated through technological applications, and greater operational efficiencies should be expected, but the probability is that most students will have to be housed on traditional campuses and educational centers For the purposes of this projection, the Commission is assuming that 100,000 FTES

DISPLAY 56 Cost Estimates Contained in "Higher Education at the Crossroads" (CPEC 1990a) for New Campuses and Off-Campus Centers

System (15-Year Growth)	Total Cost (1990 Dollars)	Annual Cost
California Community Colleges		
(540,019 Headcount)		
New Campuses	$953,304,000	
Existing Campuses	1,681,863,000	
Total	$2,635,167,000	$175,677,000
The California State University		
(134,500 FTES)		
New Campuses	$743,220,000	
Existing Campuses	1,572,135,000	
Total	$2,315,355,000	$154,357,000
University of California		
(30,716 FTES)		
New Campuses	$1,011,600,000	
Existing Campuses	1,747,600,000	
Total	$2,759,200,000	$183,900,000
Grand Total	$7,709,722,000	$513,934,000

Source CPEC, 1990a.

will have to be educated in traditional facilities

In its 1990 projection, the Commission relied heavily on a cost model developed by the Chancellor's Office to project capital construction needs of $175 7 million per year, as shown in Display 56 This number was derived from assumptions regarding enrollment growth, square feet per student, and construction costs It was also assumed that the system was more or less at capacity, and that all of the enrollment increases would have to be accommodated by the construction of space on existing campuses, or the creation of new off-campus centers, some of which were expected to evolve into full campuses Specifically, it was assumed that 23 new campuses would be required to enroll 120,232 students (headcount) by 2005, and that existing campuses would be enlarged to enroll an additional 423,585 students for a total of 543,817 students A few months later, the Commission accepted an amended projection by the Demographic Research Unit of the Department of Finance that projected a slightly lower growth of 540,019 students The cost of this expansion was estimated at the time, for a 15-year period, at $2 6 billion, hence the annual average of $175 7 million. As with the other estimates presented in the *Crossroads* report, this amount was for expansion only, it did not include funds for the ongoing needs of existing campuses

Experience gained since the 1990 report -- and this holds true for all three systems -- suggests the need not only for a renovation of many buildings, but also of the cost estimates At the time this cost projection was conceived for the community colleges, appropriations for the previous five years (1985-86 to 1989-90) had averaged only $67 3 million per year Compared to that number, $175 7 million per year looked formidable, yet appropriations for the next five years actually averaged $206 8 million, even though enrollments were stable or declining This fact probably encouraged many districts to redefine their planning processes either to reflect their real needs, or to develop "wish lists" of projects they deemed desir-

DISPLAY 57 Five-Year Capital Outlay Plan Projections, California Community Colleges, 1992-93 to 1999-00

Year	1992 5-yr Plan (000s)	1993 5-yr Plan (000s)	1994 5-yr Plan (000s)	Overall Average
1992-93	$176,309,000			
1993-94	826,156,268	$547,350,000		
1994-95	522,788,120	867,863,000	$417,724,000	
1995-96	274,600,837	559,142,000	1,109,490,000	
1996-97	141,868,310	332,955,000	740,515,000	
1997-98	225,561,000	458,461,000		
1998-99	155,713,000			
1999-00				
Totals	$1,941,722,535	$2,532,871,000	$2,881,903,000	$2,452,165,512
Annual Average	$388,344,507	$506,574,200	$576,380,600	$490,433,102
Average of Last Four Years of Projection	$441,353,384	$496,380,250	$616,044,750	$517,926,128

Source Chancellor's Office, California Community Colleges

able, even though they may not have been demonstrably necessary There is a probability that strong psychological factors are at work here In times when low appropriations are the rule, districts often decide not to spend the time and effort justifying projects that seem to have little hope of being funded When money appears to be more readily available, incentives to take advantage of the opportunity come into play and produce more realistic, or at least higher, requests It is unfortunate that the community colleges have been producing five-year plan compilations for only three years (the fourth will be submitted in the Spring of 1995), but even with that small sample, the trend is clear The first compilation showed annual requests of $388 3 million, the second averaged $506 6 million, the third reached $576 4 million With the failure of Proposition 1C -- the $900 million general obligation bond issue -- in June 1994, and if no other successful bond issue takes its place in the next year or two, it is probable that the five-year plans over the next several years will produce lower numbers

This recent history suggests, as has been stated often in this report, that it is extremely difficult to tell what "real" needs are There are, nevertheless, some indicators that suggest at least a general answer for the community colleges

1 The $2 6 billion estimate derived for the 1990 *Crossroads* report anticipated $306 6 million in costs for the acquisition and development of new sites Recent experience, however, shows that community college districts have been very successful in obtaining sites at no cost to the State (e g Allan Hancock, Kern, State Center, Merced), since the State has forcefully demonstrated its unwillingness to finance site acquisitions, the result is that the estimate for site acquisition costs should be lowered dramatically Since the 1990 analysis as-

sumed acquisition expenditures of $71,000 per acre -- average campus acreage of 120 for each of the 23 new campuses -- any future estimate should be lowered by about $200 million

2 Building maintenance expenditures were assumed to continue at the 1988-89 level, clearly, they have not done so It was also assumed that one fifth of deferred maintenance would be eliminated each year, not only has this not occurred, the deferred maintenance problem has grown considerably worse The most recent estimate from the Legislative Analyst, which the Chancellor's Office believes is understated, indicates deferred maintenance of about $200 million systemwide The Commission believes it is at least twice that amount For this reason, it must be assumed that renovation, infrastructure repair, and minor capital outlay costs will be substantially higher than previously thought In 1989, the Chancellor's Office preliminary model estimated deferred maintenance costs at $140 6 million over the subsequent five-year period Ongoing maintenance costs were projected at another $378 6 million The total comes to $103 8 million per year, an amount that certainly has not been met, as evidenced by the growing and continuing deferred maintenance backlog

3 The earlier study did not take excess existing capacity into account At the time, it was assumed that space was needed for 1,873,210 students (headcount) in 2005-06 The current estimate for the same year is 1,722,170, a reduction of 151,040 (90,600 full-time-equivalent students) Total growth at present, between 1993 and 2005, is projected at 337,770 headcount students, which translates to 202,662 FTES if students each average nine contact hours per week, which is the average projected by the Chancellor's Office Given the existing capacity surplus of 82,500 FTES (Display 43), and adding some expected efficiencies and technological applications, the 202,662 FTES number should probably be halved

4 Costs are higher Costs are estimated using an index published by the Engineering News Record (ENR), an index that began at 100 in the early years of this century and stood at 4828 as of 1990 The recent submission by the Board of Governors uses an ENR of 5595, which indicates an average growth rate of about 3 0 percent per year, the same estimate the Commission has used for the State University and University cost projections in this report

5 The Chancellor's Office and Commission's 1990 analyses did not consider ongoing needs, only expansion At the time, the Chancellor's Office, based on a review of 1988 five-year plan submissions from the individual districts, noted that the total funding request for all purposes was for $129 million per year statewide between 1989-90 and 1993-94 This should be compared to the February 1994 five-year plan compilation, which shows requests of $576 4 million per year, as well as to actual expenditures over that period of time, which averaged $188 5 million Clearly, changes in construction cost indices cannot account for a change of this magnitude The probability is that the earlier amount, $129 million per year, reflected the fact that many districts believed that funding was so short that it was not worth the effort to develop proposals

6 Some of the difference between the earlier and later budget requests comes from the need to renovate and modernize facilities, perform minor capital outlay projects often necessitated by previously deferred maintenance, conform to health and safety codes, perform seismic retrofits, and upgrade infrastructure

As of the 1994 five-year plan compilation, there were approximately 33 6 million assignable square feet of space in the community college system Construction costs in this system tend to be lower than at the other two -- given the general absence of sophisticated instructional and research facilities found at the two universities -- so an estimate of $200 per assignable square foot is probably reasonable Given that, and again assuming a 30-year useful life span of buildings, the annual cost of maintaining the community college system would be $224 million The Commission rounds that number off to $225 million per year

In 1990, the Chancellor's Office projected a cost of $1,681 9 million to house an enrollment expansion of 423,585 headcount students on existing campuses Converting this to FTES, and then dividing into the cost estimate, produces a cost per FTES for expansion on existing campuses of about $6,600 Upgrading to 1995 dollars raises that to $7,650 per FTES Increasingly, however, there is a growing need for sophisticated facilities and equipment as the electronic/computer age impacts higher education more intensively The pace of technology has been very rapid, and much that is needed today, and will be needed in the future, was not envisioned when the estimates were developed in 1990 In the next section of this report, it is noted that the construction and equipment cost estimates for CSU, San Marcos proved to be too low A similar problem may exist regarding the community colleges, and explains why the Commission now believes that an average cost of $10,000 per FTES is more appropriate for future community college construction projects on existing campuses

For expansion on new campuses, recent experience suggests a cost per FTES of about $12,000 This is drawn from recent estimates of the cost of constructing the Madera Center of the State Center Community College District

The total enrollment increase is projected to be 202,662 FTES It is assumed that 82,500 of those FTES will enroll on existing campuses where excess space is known to exist It is further assumed that 20,000 FTES will be served by greater efficiencies and new technologies, the latter of which will have its own cost elements that are not included here, since they will come primarily from operations budgets and not capital outlay appropriations That leaves 100,000 FTES to be housed by either expanding existing campuses or constructing new campuses or educational centers If three fourths of that total (75,000 FTES) attend existing campuses and educational centers, the cost would be $750 million over 10 years or $75 million per year, the remaining fourth (25,000 FTES) should cost $300 0 million or $30 million per year, the total annual cost becomes $105 million

When another $225 million per year is added for the continuing physical health of the 106 existing campuses, the community colleges' needs become $330 million per year This assumes that there will be no costs for site acquisition It also

assumes that the community colleges will need to build five to ten additional campuses and/or educational centers with average enrollments of 2,500 to 5,000 FTES to house the 25,000 FTES projected to enroll in new institutions

A number of facilities have already been approved by the Commission for construction funding, including the Lompoc Center (Allan Hancock), Folsom Lake College (Los Rios), the Madera Center (State Center), and the Palmdale Center (Antelope Valley) These facilities are included within the definition of "new" campuses and centers, which suggests that a need will exist for no more than five additional campuses and/or centers in the next ten years Beyond this, the community college system should not need a great deal of further expansion over the next ten years, and could even need less than is projected here if various technological possibilities such as distance learning and multi-media instruction are successful, or if enrollments tend towards the Commission's Low Alternative enrollment projection

California State University

For the coming 1995-96 fiscal year, the California State University submitted a request for $130 million, most of which is for the construction or renovation of facilities on 17 of the system's 20 existing campuses (excluding Monterey Bay, since necessary renovations are expected to be financed by the federal government over a five- to eight-year period) Subsequent requests, all of which are shown in Display 58, average $500 0 million per year for the years 1996-97 to 1999-00 The current year request was sharply reduced (from an earlier estimate of $511 8 million) due to the failure of the 1994 bond issue Even with the smaller 1995-96 request included in the average, however, the State University's request still comes to $426 million per year over the course of the five-year plan If all of the projects listed in the 1995-96 five-year plan are completed -- and not all can be completed by 1999-00, the final year of the projection, even if funds are provided -- the State University should add 16,951 FTES in capacity space at a currently estimated cost of $1 4 billion Of that amount, about $1 2 billion will occur within the five-year planning period, with another $141 million incurred in the next decade All of the other elements of the capital outlay program relate to non-capacity space, and include such projects as seismic retrofits, the resolution of health and safety issues, minor capital outlay projects, and various renovation projects If all of the projects scheduled to begin in any of the five years of the current plan are completed, however, the total increase in capacity should be about 33,000 FTES

According to the Commission's capacity analysis discussed in the previous section, there is a need for 47,547 FTES in additional capacity in the State University system by 2005-06. If funded, the currently scheduled capacity increase in the current five-year plan of almost 33,000 FTES will go a long way towards meeting that need, yet it still leaves a shortage of about 14,500 FTES, even with Monterey Bay providing another 2,500 FTES in capacity by the turn of the century, and just over 5,000 FTES by the final year of the enrollment projection, 2005-06

To summarize some of the preceding discussion, current enrollment projections indicate growth of 62,881 FTES between the 1993-94 and 2005-06 academic years

DISPLAY 58 Actual and Projected Higher Education Capital Outlay Budget Requests 1990-91 to 1999-00 (in Thousands of Dollars)

Year	Community Colleges[1] Request[2]	Community Colleges[1] Appropriation[3]	California State University Request	California State University Appropriation[4]	University of California Request	University of California Appropriation[5]	Total Request	Total Appropriation
1990-91	$217,268	$190,969	$222,772	$215,702	$232,233	$231,719	$672,273	$638,390
1991-92	209,104	102,624	238,271	144,081	235,484	220,307	682,859	467,012
1992-93	170,862	113,912	235,492	228,115	247,350	147,480	653,704	489,507
1993-94	495,751	424,907	338,528	252,054	247,477	229,772	1,081,756	906,733
1994-95	350,369	14,324	424,949	11,870	258,128	5,716	1,033,446	48,910
1995-96	270,957	N/A	130,000	N/A	168,619	N/A	569,576	N/A
1996-97	518,000	N/A	500,000	N/A	139,720	N/A	1,157,720	N/A
1997-98	518,000	N/A	500,000	N/A	148,774	N/A	1,166,774	N/A
1998-99	518,000	N/A	500,000	N/A	158,987	N/A	1,176,987	N/A
1999-00	518,000	N/A	500,000	N/A	109,761	N/A	1,127,761	N/A
1990-91 to 1994-95 Annual Average	$288,671	$169,347	$292,002	$173,764	$244,134	$166,999	$824,808	$510,110
1995-96 to 1999-00 Annual Average	$468,591	N/A	$426,000	N/A	$145,172	N/A	$1,039,764	N/A
1990-91 to 1990-00 Annual Average	$378,631	N/A	$359,001	N/A	$194,653	N/A	$932,286	NA

1 Requests for 1990-91 through 1995-96, and appropriations for 1990-91 through 1994-95, are actuals Requests for 1996-97 through 1999-00 are estimates based on previous five-year plan projections

2 The $500 million amounts shown for 1996-97 through 1999-00 reflect Commission estimates based on an analysis of previous five-year plan averages

3 In 1994-95, the Legislature appropriated $194,646,000 for the California Community Colleges, $180,322,000 of which was contingent on passage of Proposition 1C Since the bond issue failed, only $14,324,000 remained from lease-payment bonds

4 In 1994-95, the Legislature appropriated $142,622,000 for the California State University, $113,752,000 of which was contingent on passage of Proposition 1C Since the bond issue failed, only $28,870,000 remained from lease-payment bonds

5 In 1994-95, the Legislature appropriated $166,546,000 for the University of California, $160,830,000 of which was contingent on passage of Proposition 1C Since the bond issue failed, only $5,716,000 remained from lease-payment bonds

Source UC, CSU, CCC five-year plans, CPEC staff analysis

Currently, the State University has surplus space for 10,103 FTES, and the Monterey Bay campus is expected to enroll another 5,231 by the final year of the projection That leaves a space deficit in the system of 47,547 FTES (62,881 - 10,103 - 5,231)

These numbers may not suggest a crisis for the State University in its efforts to enroll all qualified students for the next ten years, but they do point to a degree of urgency, particularly for campuses such as San Marcos that need to add space relatively rapidly, not only because of population pressures in the region, but also to achieve economies of scale For the rest of the system, sound planning, and a steady stream of resources, will be essential if the students desiring entry for the latter years of the projection -- 2000 to 2005 -- are to be enrolled

In the *Crossroads* report, the Commission postulated annual budgets, just for growth, of $154 4 million per year for 15 years to enroll an additional 134,500 FTE students A portion of that estimate was derived from a special projection for the new San Marcos campus, which suggested that a campus of 5,000 FTES would cost $164,867,000 or $32,973 per student In later years, it was estimated that the cost of adding enrollment capacity to a mature campus would be about $21,000 per student

The actual experience thus far has been somewhat different In 1988-89, the San Marcos campus received its first capital outlay appropriation in the amount of $1,595,000 Since that time, $77 9 million has been appropriated, with the 1995-96 Five-Year Plan scheduling another $129 9 million through 1999-00 The total, for a projected 2000-01 enrollment of 4,690 FTES, is $209,375,000, or $44,642 per student In the future, of course, it can be expected that the cost per student will decline as economies of scale take effect, but the total thus far is considerably higher than the 1990 projection Because of that, the Commission feels that the ongoing projection of $21,000 per student should be adjusted upward to about $33,000 The State University has suggested that a figure of $35,000 per FTES be used, but the Commission is using a number slightly lower than that to reflect both the stringency of available funding and the related probability that economies will be demanded of everyone in the future That number ($33,000) suggests that the space necessary to enroll an additional 47,547 FTE students by 2005-06 should cost $1,569 1 million to construct and equip, or about $142 6 million per year for the 11-year period beginning in 1995-96 This assumes that all projected growth will occur on existing campuses Should construction begin on the new Ventura site, the annual cost will grow slightly, probably to the $145 to $150 million per year range In round numbers, the Commission estimates $145 million per year over the next ten years for planning, construction, and equipment

In addition to these growth costs, there is the need to maintain the existing plant, a category that covers such items as periodic renovations, seismic retrofits, conformity with the Americans with Disabilities Act, upgrading of codes, and the replacement and upgrading of infrastructure Currently, the State University reports that it has an inventory of 23 2 million assignable square feet of space of all types When such self-supporting activities as housing and student unions are deleted from the list, the total is reduced to 20 3 million The replacement value of these facilities would vary somewhat depending on the type of facility being replaced, but it is probably reasonable to assume a cost of $250 per assignable square foot From that, and assuming a 30-year useful life span for State Univer-

sity buildings, the annual capital outlay cost -- excluding routine maintenance activities -- of keeping the existing plant in good condition would be $169 2 million To contrast this figure with another, the State University estimates the current value of its physical plant to be $7 billion Dividing that by 30 -- the estimated useful life of buildings -- produces an annual need of $233 3 million per year This contrasts to the State University's funding requests of $503 2 million per year between 1995-96 and 1999-00 for all purposes, with only about a fourth of that identifiable for growth, leaving an ongoing renovation, reconstruction, repair, and maintenance budget -- the amount unrelated to growth -- of $377 4 million

These numbers provide a considerable range of opinion on the cost of keeping the existing physical plant in good working order -- an annual need of between $169 2 and $377 4 million -- but simultaneously help to define the parameters of the problem In the long run, the Commission believes that a number of about $200 million, in today's dollars, is probably close to the real need In the short run, however, the backlog of projects that should have been undertaken in prior years, exacerbated by the deferred maintenance problem that has certainly reduced the useful life span of numerous buildings, causes the Commission to think that a higher number of about $250 million per year over the next five years is reasonable In the succeeding five years, the $200 million figure should become operative, unless it, too, is forced higher by a continued deferral of projects

The total need comes to $392 6 million per year over the next five years, with a reduction to $342 6 million per year through 2005-06, all in today's dollars Normal price inflation, of course, will drive those costs higher

University of California

The Commission's projection for the University of California shows a headcount enrollment of 195,167 students in Fall 2005 Given the historical relationship between Fall Term headcount and annualized FTES, that number translates to 182,268 FTES, which is an increase of 29,945 FTES, most of which will be at the undergraduate level

Existing total buildout capacity at the University of California is estimated in Display 59 Although the Commission has estimated existing physical capacity to be 154,152 FTES, the buildout capacity, based on the University's Long Range Development Plans (LRDP's) is projected to be 184,500 FTES on its eight general campuses, which permits expansion of 30,348 FTES, virtually all of it on six campuses The Commission's enrollment projection, however, indicates that space will be needed for only 178,423 FTES, excluding the San Francisco campus, or growth of 29,945 FTES from the 1993-94 FTES of 148,478 Unfortunately, and as Display 60 on page 96 indicates, it will only be possible to expand the University's capacity to 176,523 FTES by 2005-06 -- assuming there is no tenth campus in operation by that time -- which leaves a space deficit of 1,900 FTES After 2005-06, there will still be some room to expand the existing general campuses by about another 8,000 FTES, those campuses cannot accommodate the full measure of projected growth prior to 2005-06, however, because there are limits on the speed at which any campus can grow, a limit of about 800 FTES per year

DISPLAY 59 Physical Capacity Limitations at the University of California for 2005-06, as Determined by Approved Long-Range Development Plans

Campus	Headcount Students: Undergraduate	Headcount Students: Graduate	Headcount Students: Total	Full-Time-Equivalent Students: Undergraduate	Full-Time-Equivalent Students: Graduate	Full-Time-Equivalent Students: Total
Berkeley	20,000	8,700	28,700	19,400	8,700	28,100
Davis	20,000	5,000	25,000	19,696	5,000	24,696
Irvine	20,000	5,000	25,000	20,000	5,000	25,000
Los Angeles	22,300	8,700	31,000	20,962	8,700	29,662
Riverside	14,400	3,600	18,000	14,005	3,600	17,605
San Diego	20,000	5,000	25,000	19,680	5,000	24,680
Santa Barbara	16,000	4,000	20,000	15,776	4,000	19,776
Santa Cruz	12,000	3,000	15,000	11,981	3,000	14,981
Totals	144,700	43,000	187,700	141,500	43,000	184,500

Source University of California, Office of the President.

In 1990, the *Crossroads* report assumed that a tenth campus would have to be built, with an opening enrollment of 3,520 FTES, if the projected enrollment was to be accommodated Given the data in Display 60, which show that all but 1,900 of the projected FTES can be enrolled, the tenth campus remains something of an open question for the near term In the long run, 2005-06 and after, it seems likely that a tenth campus will be needed, but the probability remains that the existing general campuses will be able to enroll all, or almost all, of the students projected to desire admission in the next ten years, through 2005-06 This is particularly true if actual enrollments are closer to the low alternative enrollment projection than to the baseline projection

The Commission estimated the start-up cost of the tenth campus (for 3,520 FTES) at $209 2 million in 1990 With a normal cost progression of 3 percent per year, the comparable cost for 1995-96 should be about $242 5 million, which would probably be spread out over a five- to seven-year period, and perhaps longer

About the only thing that could change the decision about a tenth campus would be if the State decided to place a greater emphasis on graduate education The enrollment projection in Chapter Three of this report was concerned with undergraduate students; the graduate division as a whole was projected by the Demographic Research Unit of the Department of Finance (as reported in the Commission's enrollment projection) to increase from 40,831 to 42,237, an increase of only 1,406 students compared to an undergraduate increase in the baseline projection of 30,658 If the State determined that greater numbers of advanced degrees were needed, and therefore a greater number of graduate students, there could be sufficient overflow from the existing campuses to warrant a second look at the time schedule for the University's San Joaquin campus, which will be located at Lake Yosemite near Merced

As noted above, the Commission believes that an additional 29,945 FTES need to be served by 2005-06, 28,045 FTES of which could be enrolled on existing campuses -- a difference of 1,900 The remainder will have to be included in a tenth campus, by greater efficiencies in space management, by temporary overcrowd-

DISPLAY 60 Comparison of 1993-94 University of California FTES Enrollments to Long-Range Development Plan (LRDP) Limits and Enrollment Projections through 2005-06 (Excluding the San Francisco Campus)

Campus	1993-94 FTES Enrollment[1]	LRDP Limit	Simulated 2005-06 Enrollment Distribution[2]	Difference from 1993-94	Annual Average FTES Growth[3]	CPEC Enrollment Projection[4]	Unserved FTES
Berkeley	28,103	28,100	28,100	-3	-0	--	--
Davis	21,383	24,696	24,696	3,313	276	--	--
Irvine	15,916	25,000	21,563	5,647	471	--	--
Los Angeles	31,118	29,662	31,000	-118	-10	--	--
Riverside	8,201	17,605	13,848	5,647	471	--	--
San Diego	16,911	24,680	22,558	5,647	471	--	--
Santa Barbara	17,053	19,776	19,776	2,723	227	--	--
Santa Cruz	9,793	14,981	14,981	5,188	432	--	--
Totals	148,478	184,500	176,523	28,045	2,337	178,423	1,900

1 Includes health sciences on general campuses but excludes the entire San Francisco campus The assumption is that there will be no growth in health sciences systemwide over the course of the projection

2 The 178,781 FTES in 2005-06 is a simulation based on distributing each annual growth increment in the CPEC projection evenly over all campuses that are below their LRDP limitations It is assumed that no campus will grow by more than 800 FTES in any given year

3 Each campus does not grow by exactly this amount each year Growth tends to accelerate in the later years of the projection, in part due to stronger growth in the last six years of the projection compared to the first six years, and in part because as campuses reach their LRDP limitations, growth must be spread among fewer campuses, thereby causing those campuses to grow at faster rates.

4 This is a conversion to FTES from the Commission's baseline Fall Term headcount enrollment projection The San Francisco campus is excluded.

Source UC, 1994b, CPEC Staff Analysis

ing, or by the creative uses of technology For the purposes of this estimate -- and with the caveat in the preceding paragraph -- the Commission is assuming that a tenth campus will not enroll any students during the ten-year period of the projection Although it is possible that some funds will be spent for planning and construction of that campus prior to 2005-06, the primary assumption is that some combination of other factors will provide for the unserved 1,900 FTES, and that the true space need will therefore be for about an additional 28,000 FTES

If actual enrollment experience tends toward the low alternative projection, then the final-year enrollment projection falls by 9,192 FTES by 2005-06, which has the effect of deferring any consideration of a tenth campus to beyond 2005-06, and also generating lower rates of growth on the six general campuses where growth remains possible

Building facilities for these students will require five of the eight general campuses to reach their LRDP limitations by 2005-06 This includes Berkeley and UCLA, which are already at approximately their LRDP limits and are not projected to grow further At present, the Irvine, Riverside, and San Diego campuses have strong potentials for further growth, yet none should reach its LRDP ceiling by the end of the projection Less growth is possible at the Davis, Santa Barbara, and Santa Cruz campuses, and all should reach their ceilings within the next ten years

In 1989 and 1990, both the University and the Commission examined the potential costs of this expansion with some care, concluding then that the cost of expansion

should come to $183 9 million per year to build space for an additional 30,716 FTES over a period of 15 years. Of that 30,716 FTES total, $1 0 billion was projected to be needed for only 3,520 FTES on a presumed tenth campus, with the remaining 27,196 students enrolling on existing campuses Such numbers produce costs per FTE student, in 1990 dollars, of $19,159 per year for 15 years for the initial startup of the tenth campus, and $4,284 per student per year for those to be enrolled on existing campuses These numbers should reasonably be converted to 1995 dollars by employing changes in the cost indices provided by the Engineering News Record (ENR) At an average inflation rate of 3 0 percent per year, that should increase costs by 15 9 percent over the five-year period, thereby indicating a cost of $4,965 per FTE student per year Assuming the University needs to provide space for an additional 28,000 FTES, the annual cost would be about $140 million

It should also be noted that the cost figures cited above are not comparable to those discussed earlier for the community colleges and the State University The University projected its cost on an annualized per-student basis, while the other systems compute total cost figures that are not spread out over a period of years As a result, the University's cost figures appear to be lower, when in fact the actual costs of creating space in that system tend to be higher than in the others

According to its latest capital outlay budget, the University is requesting an average of $145 2 million per year for capital outlay over the next five years, virtually none of which is for expansion As the University notes in its most recent capital outlay request

> Given the uncertainty of enrollment growth at this time, the State has not been willing to support capital funding for projects dependent on projected growth The funding requests scheduled in the University's capital program as presented in this document reflect this position Proposed projects that were planned to support enrollment growth above current levels have been deferred to the end of the five-year planning period or beyond No new academic program improvement projects are introduced for 1995-96 funding in this capital proposal We continue to hope that in the future the State will support the enrollment needs of California, and the University continues to plan for that eventuality and will remain ready to accelerate projects necessary to meet that need at the earliest opportunity (UC 1994b, p 3)

The 1995-96 request covers such items as renovations, seismic upgrades, code improvements, and the selective relief of overcrowded conditions, but contains little for enrollment growth

The Commission doubts that $145 million per year will be enough to keep the University's total physical plant in good condition, but since no other estimates are available, and probably cannot be created without a large expenditure of time and resources, the Commission has settled on a round number of $300 million per year for all purposes, with equal shares of $150 million each devoted to the maintenance of the existing physical plant, and expansion

Summary The cost estimates discussed above fall into two categories those needed for ongoing maintenance, renovation, remodeling, upgrading, and conformity with changing health and safety codes unrelated to enrollment growth, and those directly attributable to enrollment increases A summary of the estimated costs is shown in Display 61 for both the baseline and low alternative enrollment projections

The ongoing maintenance category often contains many discretionary elements, projects that are needed at a certain time, but which could be deferred if absolutely necessary Unfortunately, so many projects of this type have been deferred, particularly in the community colleges, that time is running out, and the point is being reached where further delay will cost more money in the long run, and could result in the disruption of campus activities in the short run The Commission believes that an annual capital outlay appropriation of about $625 million per year (CCC - $225 million, CSU - $250 million, UC - $150 million) for these purposes is reasonable, and will permit the 137 campuses that comprise California public higher education to maintain their vast physical infrastructure in good condition

The second category is for enrollment expansion, which the Commission estimates should cost $400 million per year (CCC - $105 million, CSU - $145 million, UC - $150 million) over the next ten years

The numbers in the preceding two paragraphs indicate needs of $330 million, $395 million, and $300 million per year for the Community Colleges, the State University, and the University, respectively The total is $1,025 million per year Sums of that magnitude have been expended only once in the State's history, in 1993-94 ($906 7 million was appropriated that year), and the failure of the bond issue in June 1994 suggests strongly that it is unlikely that such amounts will again be

DISPLAY 61 A Summary of Annual Projected Capital Outlay Costs in California's Three Public Higher Education Systems (in Millions)

A	B	C	D	E	F
				Totals	
System	Costs to Maintain the Existing Physical Plant	Costs to Accommodate Enrollment Growth (Baseline Enrollment Projection)	Costs to Accommodate Enrollment Growth (Low Alternative Enrollment Projection)	Baseline Enrollment Projection (B+C)	Low Alternative Enrollment Projection (B+D)
California Community Colleges	$225	$105	$45	$330	$270
California State University	250	145	99	395	349
University of California	150	150	104	300	254
Totals	$625	$400	$248	$1,025	$873

Source CPEC staff analysis

available in the near future That problem, which may more properly be termed a dilemma, suggests the need for a discussion of the State General Fund and possible capital outlay funding sources, bonds in particular The discussion of those issues follows in Chapters Six and Seven of this report

Cost projections for the low alternative enrollment projection

As noted in the preceding sections, much of the need for capital outlay funding has little to do with enrollment growth, but is needed only to maintain the existing physical plant in good condition Such maintenance involves periodic renovations, code upgrades, infrastructure repairs, and the replacement of buildings that no longer serve a useful purpose For these purposes, the total cost is estimated at $625 million per year

In the baseline projection, it appears that another $400 million will be necessary to enroll the 455,190 students (Fall headcount) expected to desire admission Yet the low alternative proposes growth of 330,035 students When measuring FTES, the baseline projection anticipates growth of 295,488, while the low alternative produces growth of 213,401

California Community Colleges

In the Community Colleges, the baseline projection indicates a need to find space for about 100,000 FTE students The low alternative, assuming efficiencies and productivity increases, envisions a need to find space for 47,000 FTES, or about half of the baseline projection Given this relatively modest growth, the Commission assumes that only 10,000 FTES will be enrolled in new facilities, most of which have already been favorably recommended by the Commission, with the remaining 37,000 FTES to be enrolled on existing campuses Given the costs discussed in the community college section above, that translates to $44 5 million per year for expansion, and $269 5 million for the total

The California State University

At the California State University, the low alternative enrollment projection reduces the need for additional space from 47,547 FTES to 27,562 Given the cost estimates detailed above, which indicate a need for $145 million per year for the next ten years just for growth, the growth factor under the low alternative would be reduced proportionately to $99 million per year The total would be $349 million annually

University of California

At the University of California, the baseline projection, with adjustments, anticipates growth of 29,945 FTES between 1993-94 and 2005-06 The low alternative suggests growth of 20,753, virtually all of it on six existing campuses (all but Berkeley and UCLA) The baseline estimate was for $150 million per year for growth, the low alternative suggests a proportional decrease to $104 million per year The total comes to $254 million annually

Overall, the low alternative enrollment projection produces a low alternative capital outlay projection of $872 5, which is only a reduction of 14 9 percent from the baseline estimate

6 Resources: Can California Afford to Expand?

Introduction In recent years, various attempts to develop long-range General Fund revenue and expenditure projections have been more or less unsuccessful For example, in its Fall 1990 report, the now defunct Commission on State Finance (COSF) offered the projection shown in Display 62 Also shown in that display are actual General Fund revenues and transfers from 1990-91 to 1993-94, estimated revenues for the current year, and the Governor's Budget projection for 1995-96 Given the latest Governor's Budget numbers, General Fund revenues and transfers in the current year alone are $12 1 billion less than projected only five years ago For the five-year period that includes 1990-91 through 1994-95, revenues fall short of projections by $35 4 billion

In spite of the pitfalls, however, policy makers often find long-range projections useful, and forecasters and planners consequently attempt to provide them Further, since there is general agreement that planning is beneficial, it is inevitable that long-range economic and fiscal forecasts will continue to be created In that spirit, because it is the State's long-range planning agency for higher education, and because any viable plan must integrate growth with resources, the Commission has endeavored to forecast General Fund revenues and expenditures for the interval covered by this planning exercise -- the ten years between 1995-96 and 2005-06 In doing so, it is important to inform the readers of this report as to the methodology employed This is particularly important at the present time, since no State agency is currently attempting to develop long-range General Fund revenue or expenditure projections, although State Controller Kathleen Connell has indicated that her office will develop projections in the future

DISPLAY 62 Commission on State Finance's (COSF) 1990 Forecast for General Fund Revenue for the Years 1990-91 to 2000-01 (in Millions)

Fiscal Year	COSF Projection	Actual/ Projected	Difference
1990-91[1]	$42,026	$38,214	-$3,812
1991-92	44,194	42,026	-2,168
1992-93	47,531	40,946	-6,585
1993-94	50,774	40,095	-10,679
1994-95[2]	54,499	42,353	-12,146
1995-96[3]	58,758	42,538	-16,220
1996-97	63,344	N/A	N/A
1997-98	68,395	N/A	N/A
1998-99	73,918	N/A	N/A
1999-00	80,075	N/A	N/A
2000-01	86,880	N/A	N/A
Total Difference, 1990-91 to 1995-96			-$51,610

1 This was an estimate at the time
2 1995-96 Governor's Budget estimate
3 1995-96 Governor's Budget projection

Sources Governor's Budgets, COSF, 1990

Methodology for the General Fund revenue projections

Any forecast depends equally on the validity of the mathematical model employed and the as-

DISPLAY 63 Historical Relationship Between Personal Income and General Fund Revenue, 1975-76 and 1995-96

Fiscal Year	Per Capita Personal Income	General Fund Revenue[1] (Millions)	General Fund Taxes per $100 of Personal Income
1975-76	$6,934	$9,050	6 06
1976-77	7,630	10,781	6 44
1977-78	8,339	12,950	6 95
1978-79	9,365	14,188	6 63
1979-80	10,523	16,904	6 91
1980-81	11,688	17,808	6 41
1981-82	12,841	19,053	6 11
1982-83	13,418	19,567	5 88
1983-84	14,122	22,300	6 23
1984-85	15,392	25,515	6 42
1985-86	16,338	26,974	6 25
1986-87	17,114	31,331	6 77
1987-88	17,870	31,228	6 30
1988-89	18,753	35,647	6 70
1989-90	19,671	37,248	6 50
1990-91	20,606	36,828	5 96
1991-92	20,717	40,072	6 31
1992-93	21,320	39,197	5 87
1993-94[2]	21,517	38,548	5 64
1994-95[3]	22,088	40,867	5 74
1995-96[4]	23,136	41,585	5 48
1975-76 to 1993-94 Average			6 33

1 Includes only revenues from taxes Other income to the General Fund includes "Regulatory Taxes and Licenses," Services to the Public pooled money investments, royalties from oil and gas leases, rentals, fixed asset sales, and miscellaneous There are also "Transfers & Loans," which include minor revenues from dozens of special funds and other sources

2 Estimate This compares to the most recent UCLA Business Forecasting Project Personal Income estimate of $21,891

3 Estimate This compares to the most recent UCLA Business Forecasting Project Personal Income estimate of $23,170

4 Estimate This compares to the most recent UCLA Business Forecasting Project Personal Income estimate of $24,504

Source Governor's Budget, 1995-96, UCLA Business Forecasting Project, December 1994

sumptions that shape it The model used by the Commission emerged from an analysis of possible economic analogs to General Fund spending Certainly, many possible economic indicators are available, including Personal Income, Taxable Sales, Labor Force growth, Gross State Product, Residential Building volume, and even Gross Domestic Product In analyzing the correlations between General Fund growth and several of these indices, the Commission found strong correlations for several indicators, and even stronger correlations among the indicators themselves (e g the relationship between Gross State Product and Personal Income is almost one to one) This analysis revealed that the strongest correlation to the General Fund over a long period of time (15 to 20 years) was from Personal Income growth, and while other indicators could have been used along with Personal Income in a multiple regression analysis, the addition of other variables did not improve the reliability of the model to a level sufficient to justify the increased complexity Accordingly, the Commission chose to use a simple regression model to project General Fund revenue based only on California Personal Income

Others have found the analog between the Personal Income and the General Fund to be strong For example, the 1995-96 Governor's Budget plotted that relationship back to the 1960s in terms of "Taxes per $100 of Personal Income " Display 63 shows the past 20 years and indicates that total tax receipts to the General Fund have only varied between a high of $6 95 per $100 of Personal Income and a low of $5 64, although the Governor's Budget calls for a new low of $5 48 in the 1995-96 budget year -- a number that could go lower if the Governor's proposed income tax cuts are approved The average for the 20-year period since 1975-76, excluding the current and budget year projections, is $6 33

The identification of this relationship between Personal Income and the General Fund led the Commission to create Displays 64 and 65, which not only indicate the closeness of the relationship be-

DISPLAY 64 Historical Relationship Between Personal Income Growth and General Fund Growth, 1979-80 to 1994-95 (in Millions of Dollars)

Fiscal Year	Personal Income[1]	Index Value	Percent Change	General Fund Revenue[2]	Index Value	Percent Change	Pers Inc Growth Exceeds General Fund[3]
1979-80	$261,445	100 0%	N/A	$17,984 6	100 0%	N/A	0 0%
1980-81	294,985	112 8%	12 8%	19,023 1	105 8%	5 8%	6 7%
1981-82	322,375	123 3%	9 3%	20,960 3	116 5%	10 2%	5 8%
1982-83	345,409	132 1%	7 1%	21,233 2	118 1%	1 3%	11 9%
1983-84	377,770	144 5%	9 4%	23,809 5	132 4%	12 1%	9 1%
1984-85	414,396	158 5%	9 7%	26,536 1	147 50%	11 5%	7 4%
1985-86	447,114	171 0%	7 9%	28,072 2	156 1%	5 8%	9 6%
1986-87	479,150	183 3%	7 2%	32,518 9	180 8%	15 8%	1 4%
1987-88	513,850	196 5%	7 2%	32,533 9	180 9%	0 0%	8 6%
1988-89	552,850	211 5%	7 6%	36,952 9	205 5%	13 6%	2 9%
1989-90	595,500	227 8%	7 7%	38,749 5	215 5%	4 9%	5 7%
1990-91	626,300	239 6%	5 2%	38,213 5	212 5%	-1 4%	12 7%
1991-92	651,100	249 0%	4 0%	42,026 5	233 7%	10 0%	6 6%
1992-93	675,150	258 2%	3 7%	40,946 5	227 7%	-2 6%	13 4%
1993-94	699,250	267 5%	3 6%	40,095 4	222 9%	-2 1%	20 00%
1994-95	748,900	286 4%	7 1%	42,352 6	235 5%	5 6%	21 6%
Average Annual Increase (15 Years)			7 3%			5 9%	

1 Personal income data are normally reported by calendar year These figures are therefore averaged between two calendar years (e g 1979-80 = [1979+1980]/2)

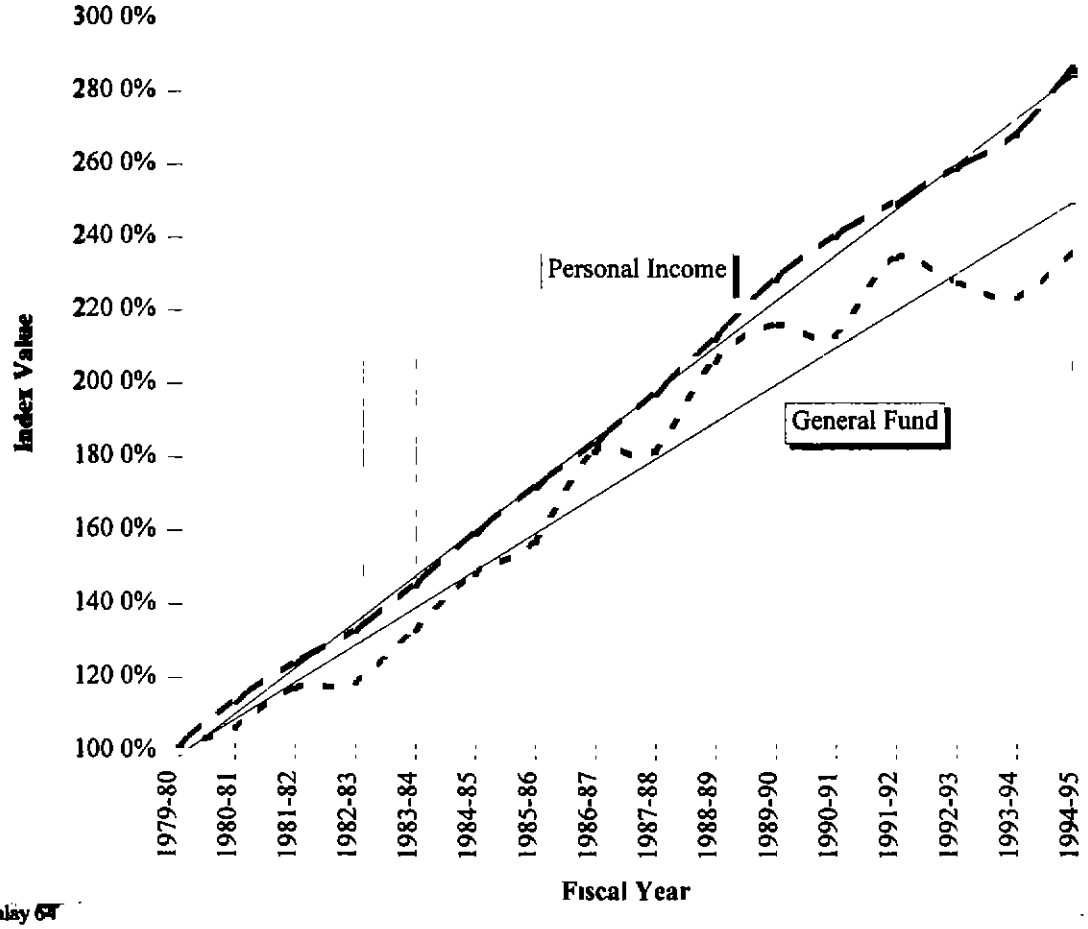
2 Includes transfers

3 This is a cumulative total After 15 years, Personal income has grown 21 6 percent more than General Fund revenue Had the General Fund grown at the same rate, it would have produced $51 5 billion in revenue in 1994-95, $9 2 billion more than was actually collected

Sources Governor's Budgets, UCLA Business Forecasting Project, Commission staff analysis

tween the two -- over the 15-year period examined, there was a correlation coefficient of 95 between Personal Income growth and overall General Fund revenue growth (1 0 representing a perfect one-to-one relationship, or parallel lines) -- but also suggests that California's current tax system tends to produce revenues at a slower pace than economic growth generally This fact is also indicated by the diminishing amount of taxes per $100 of Personal Income, as noted in the previous paragraph Over the past 15 years, Personal Income has grown by an average of 7 3 percent per year while General Fund revenues have grown at only a 5 9 percent annual rate

DISPLAY 65 Comparison of Growth Rates for California Personal Income and the State General Fund, 1979-80 to 1994-95



Source Display 64

Had revenue growth been consonant with Personal Income growth, 1994-95 revenues to the General Fund would have been $9 2 billion higher

The reasons for the General Fund's increasing variance from Personal Income growth are probably at least twofold, and relate to California's two primary revenue sources, the personal income tax and the sales tax

- First, the personal income tax indexing system, whereby tax rates are reduced each year by the rate of inflation, may actually be producing tax cuts At present, there are broad discussions within the Federal Bureau of Labor Statistics, which publishes the Consumer Price Index (CPI) and various other inflation indices, to determine if the CPI does not overstate inflation If it can be shown that the real rate of inflation is less than indicated by the CPI -- some analysts believe the CPI may be about 0 5 percent too high -- then an adjustment in the indexing of California's income tax -- "de-indexing" -- may be warranted
- The second factor concerns the sales tax Over the past two decades, and perhaps longer, California's economy has changed from a manufacturing to a ser-

vices orientation, yet the sales tax applies only to the sale of tangible objects, a fact that leads to a number of anomalies As an example, if one purchases a lawn mower, sales tax is paid, but if one hires a lawn service, there is no tax Similarly, if one purchases a software program to compute income taxes, sales tax is paid If one hires an income tax service, no tax is paid These examples could be repeated many thousands of times, with the examples becoming more numerous in the future Given the fact that most of California's future economic expansion will probably lie in the services area, and the fact that California's tax structure does not recognize service activity, the gap between Personal Income and sales tax revenue -- and hence General Fund revenue -- will probably grow

General Fund revenue estimates

For this report, the Commission has constructed a mathematical model based on a regression analysis that offers a probable range of General Fund income on an annual basis over the next 10 years Various statistical tests on these data indicate confidence levels for the data based on the historical correlation, the most important of which is the "standard error," a statistical measure of deviation from the mean The independent variable in this model is Personal Income, which means that if the Personal Income projections prove to be accurate, it is likely (95 percent confidence level) that General Fund Revenues and Transfers will fall within the range shown in Displays 66 and 67 on pages 106-107 The Personal Income projections are from the UCLA Business Forecast for 1995, as adjusted for the effect of existing law, which eliminates the top brackets of the State income tax beginning in the 1996 calendar year According to the Legislative Analyst, this provision, which "sunsets" the top income tax brackets, will reduce General Fund revenues by just under two percent annually

During the "Great Recession" of the past four years -- 1990-91 through 1993-94 -- General Fund revenue was almost flat, growing by only 0 9 percent per year By comparison, between 1979-80 and 1989-90, growth averaged 8 0 percent per year For this projection, it is estimated that the General Fund will grow by an average of 5 2 percent per year

General Fund expenditure estimates

General Fund expenditure projections are considerably more difficult to project than revenues The General Fund supports a very wide variety of activities, many of which are dependent on caseload levels (including K-12 and higher education enrollments), changes in State and federal law, court decisions, voter initiatives, loan revenue, and budgetary expansions or contractions determined solely by the availability of revenues During the most recent four years, expenditure rates were relatively unstable in comparison to previous years, with wide swings in the budgets for State Operations, Corrections, Education, and Health and Welfare Spending for the public schools and community colleges was partially protected by the Proposition 98 funding guarantees, but even there, shifts in the allocation of property tax funding had a multi-billion dollar impact on General Fund spending in that area

DISPLAY 66 General Fund Revenue Forecast, 1994-95 to 2005-06 (in Millions of Dollars)

	General Fund Revenues and Transfers					
Fiscal Year	Personal Income	Percent Change	Baseline Projection[1]	Percent Change	Low End of Range	High End of Range
1994-95	$683,000	N/A	$42,400	N/A	$40,620	$44,180
1995-96	715,500	4 8%	43,800	3 3%	41,961	45,639
1996-97	782,300	9 3%	46,700	6 6%	44,739	48,661
1997-98	819,800	4 8%	48,500	3 9%	46,463	50,537
1998-99	869,300	6 0%	50,900	4 9%	48,763	53,037
1999-00	931,600	7 2%	54,053	6 2%	51,783	56,323
2000-01	982,800	5 5%	56,604	4 7%	54,227	58,981
2001-02	1,038,300	5 6%	59,449	5 0%	56,952	61,945
2002-03	1,098,700	5 8%	62,392	5 0%	59,772	65,011
2003-04	1,168,900	6 4%	65,923	5 7%	63,155	68,691
2004-05	1,248,300	6 8%	69,945	6 1%	67,008	72,882
2005-06	1,329,400	6 5%	73,967	5 8%	70,861	77,073
Average Annual Change		6 2%		5 2%		

1 Revenue projections have been reduced to reflect the elimination of the high-income tax brackets after the 1995 calendar year The amount of the reductions, as estimated by the Legislative Analyst, are $300 million in 1995-96, $800 million in 1996-97, $900 million in 1997-98, and $1 billion in 1998-99 In subsequent years, the effect has been measured by reducing the projection by 1 9 percent per year

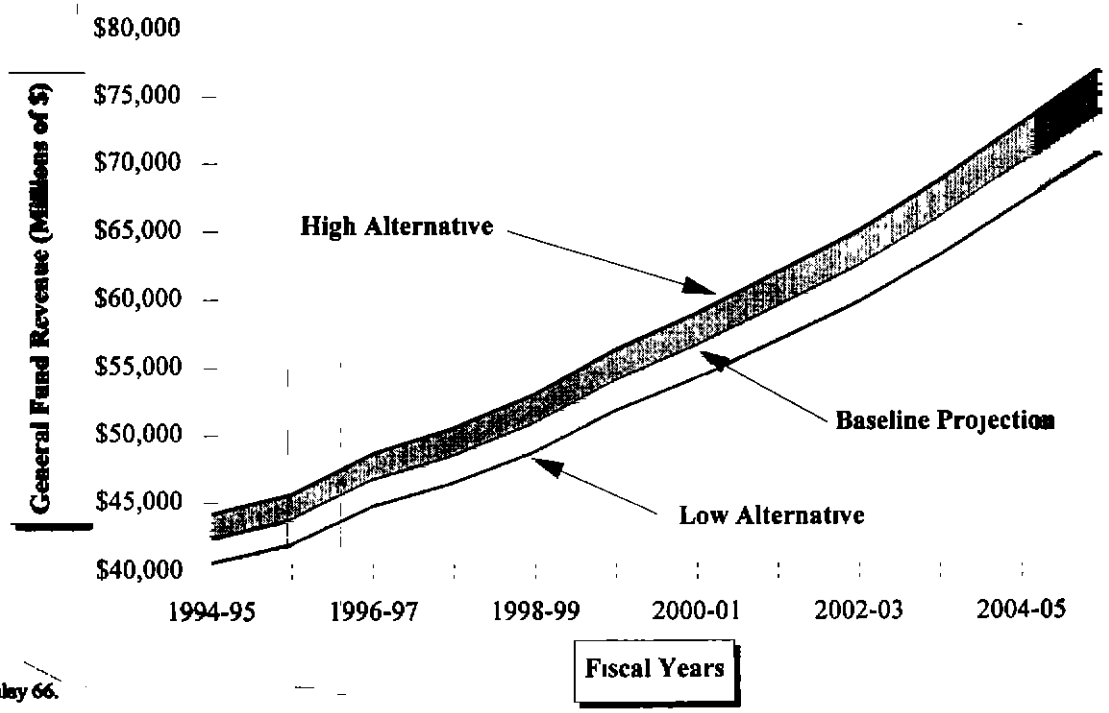
Source Personal income projection UCLA Business Forecast, December 1994, General Fund projection, CPEC staff analysis plus Office of the Legislative Analyst for revenue adjustments noted in the footnote.

The estimating methodology

In endeavoring to assess the availability of funding for California higher education, the Commission, of necessity, has had to examine other major expenditure categories that depend on General Fund financing This examination has involved a number of conversations with agency representatives to ascertain their views on future expenditure levels, although it should be added that no one was willing to be quoted, and that many refused to discuss the matter at all The Commission has also examined historical expenditure patterns for several large categories and agencies This did not, and could not, involve a detailed projection of likely spending for every agency and program, but it was possible to select the major expenditure programs, develop a number of alternative scenarios for their future resource needs, and then aggregate all other programs into a single category and produce a projection for that category In this way, it is possible to develop several possible patterns that General Fund spending could take in the next decade

Each year, the Commission publishes *Fiscal Profiles*, a statistical compendium of State expenditures with a particular emphasis on higher education (CPEC 1994b) Within its pages are historical arrays of General Fund expenditures, enrollment levels, comparisons with other states, bonded debt, population growth, and many other items The first display in this report has always been a summary of General Fund spending arrayed across nine budget categories, and it was these nine categories, shown in Display 68 on page 108, that formed the basic template for the Commission's projection Unfortunately, the instability of recent State expenditure patterns has made the use of regression analysis (straight-line projection) problematic at best In stable times, it is relatively easy to compute an annual rate of

DISPLAY 67 Projected General Fund Revenues, 1994-95 to 2005-06, with High and Low Ranges



Source Display 66.

change for various expenditure categories, develop a regression line for those expenditures, and then project that line for into the future Display 68 shows actual expenditures in various categories for the most recent four years, the current estimates for 1994-95, and the budget figures for 1995-96

Display 68 makes it clear that straight-line projections based on only a few years of data are not likely to yield reliable results To offer just one example, spending in the "Legislative, Judicial, and Executive" category grew 20 1 percent between 1990-91 and 1991-92, then fell 16 2 percent the following year, then fell another 6 5 percent In 1994-95, it is projected to grow by 3 1 percent and then by 58 9 percent in the budget year, primarily due to a proposal to increase State support for local trial courts

In looking further back, however, the expenditure tracks become somewhat more stable, and when the annual percentage changes are then adjusted to reflect current thinking from the agencies themselves, it becomes possible to project future expenditures with a modicum of confidence This is particularly true of large expenditure categories such as elementary and secondary education, since Proposition 98 provides something of a control on expenditure levels, as well as a guaranteed minimum However, even that has been upset recently by a number of State adjustments, particularly the decision to replace some State support with property tax funding -- it could be upset further depending on the outcome of various court challenges to past State actions Then, when a number of the small expenditure

DISPLAY 68 Actual and Projected General Fund Expenditures, 1991-92 to 1995-96 (in Millions of Dollars)

Year	Legis Judicial Executive	State and Consum. Services	Business Trans. Housing	Resources	Health and Welfare	Youth & Adult Correc	K-12 Education	Higher Education[1]	Other Govt Serv	Totals
1990-91	$1,346 0	$276 0	$135 7	$785 0	$13,376 8	$2,666 9	$14,265 4	$5,832 5	$1,386 8	$40,071 2
1991-92	1,616 7	285 3	178 6	745 8	13,680 0	3,049 2	16,416 0	5,831 2	1,500 5	43,303 3
1992-93	1,355 5	272 5	198 4	732 6	13,084 5	3,032 6	16,266 1	4,920 3	962 0	40,824 5
1993-94	1,267 8	281 1	226 0	667 7	13,282 3	3,383.3	14,480 8	4,680 6	688 2	38,957.9
1994-95[2]	1,306 6	322 6	293 2	836 2	14,042 1	3,666 8	15,251 2	5,104 4	858 2	41,681 3
1995-96[2]	2,076 8	347 2	323 8	825 4	11,388 2	3,703 9	16,199 7	5,267 8	1,598 6	41,731 5
Year to Year Percentage Changes										
1991-92	20 1%	3 4%	31 6%	-5 0%	2 3%	14 3%	15 1%	-0 0%	8 2%	8 1%
1992-93	-16 2%	-4 5%	11 1%	-1 8%	-4 4%	-0 5%	-0 9%	-15 6%	-35 9%	-5 7%
1993-94	-6 5%	3 2%	13 9%	-8 9%	1 5%	11 6%	-11 0%	-4 9%	-28 5%	-4 6%
1994-95[2]	3 1%	14 7%	29 7%	25 2%	5 7%	8 4%	5 3%	9 1%	24 7%	7 0%
1995-96[2]	58 9%	7 7%	10 4%	-1 3%	-18 9%	1 0%	6 2%	3 2%	86 3%	0 1%
5-Year Chg	9 1%	4 7%	19 0%	1 0%	-3 2%	6 8%	2 6%	-2 0%	2 9%	0 8%

1 Some of the reduction in General Fund support was due to shifts from State support to property tax support for the Community Colleges These included a $430 million shift in 1992-93, $327 million in 1993-94, and $220 million in 1994-95

2 Estimated

Source CPEC, 1994a, Governor's Budget, 1995-96

categories are aggregated into "Other Governmental Functions," the projection problem becomes more manageable

General spending assumptions

The Commission has derived three possible scenarios for General Fund spending over the next 10 years, which are presented later in this chapter To derive them, the Commission has made a number of general and specific assumptions The general assumptions that apply to all three spending scenarios are as follows

- The current tax structure will stay in place, with the exception that the top brackets of the State income tax will be eliminated as of the 1996 taxable year, as provided by existing law The Governor's tax reduction proposal, on the other hand, has not been included, since it has not yet been approved by the Legislature, or by the people (the Governor has suggested a statutory initiative if the Legislature does not approve the tax reduction program) The Constitutional Revision Commission is also considering a number of tax changes, but none of those proposals is reflected in the Commission's projection
- The State's current debt of $4 billion will be repaid over four years This is

based on the fact that the 1995-96 Governor's Budget proposes to repay $1,025 million in 1995-96 In reality, the Governor's Budget anticipates the repayment of the entire $4 billion owed to external sources, but borrowing from "Other Internal Sources" is expected to make up the difference

- K-12 spending is the largest expenditure in the State budget, and one for which a minimum level of spending is "guaranteed" by the State Constitution through passage of Proposition 98 Assuming General Fund growth over the next ten years follows the Commission's projection, K-12 spending should follow the "Test Two" requirements of Proposition 98 That test will result in K-12 education securing a slightly larger share of General Fund revenue than at present That share could grow dramatically, however, if the growth in property tax revenues weakens from the relatively strong projection that was developed by the Rand Corporation and that has been used for this expenditure estimate (Shires, 1995) The mechanics of Proposition 98 are discussed in detail in Appendix B
- Spending for the Department of Corrections will be held below some of the more expansive predictions that have envisioned annual increases as high as 21 percent, but will still show annual increases of about 12 percent overall The alternative scenarios suggest a range between 10 and 15 percent, and are influenced by the possibility of more or less federal financing, the accuracy of felony conviction projections, and the success or failure of various efficiency and cost-cutting measures
- The large amounts of funding anticipated from the federal government to reimburse the State for the costs of illegal immigration will, for the most part, not be received, although federal contributions will increase in the near term Much of the increased federal revenue will be directed to incarceration costs
- Other proposals in the 1995-96 governor's budget, such as the shift in trial court funding and most of the major reductions in the Health and Welfare budget are not reflected in the projection due to the large number of circumstances that will be necessary to implement them These include favorable court rulings, federal appropriations, and action by both Congress and the California Legislature The Commission has no opinion on the advisability of the proposed changes, or the probability of their implementation, they are not included in the projection only because they have not yet occurred

The Commission's three General Fund spending scenarios are shown in Displays 69 through 71, and explained in the subsequent three sections

The baseline scenario

1 Actual and estimated spending for 1993-94 and 1994-95 has been drawn from the Governor's Budget for 1995-96 Subsequent years, including 1995-96, are based only on the projections, and not on the Governor's proposals for the 1995-96 budget year

2 For Health and Welfare, spending rates have been declining in recent years There are clear indications that health spending is being more closely controlled

DISPLAY 69 Projection of General Fund Expenditures, 1995-96 to 2005-06 (Baseline Projection)

	State Operation											
	Health and Welfare		Corrections		K-12 Education[1]		Higher Education		Other Govt. Functions		Totals	
Year	Amount (Millions)	Pct. Chg.	Amount (Millions)	Pct. Chg.	Amount (Millions)	Pct. Chg.	Amount (Millions)	Pct. Chg.	Amount (Millions)	Pct. Chg.	Amount (Millions)	Pct. Chg.
1995-96	$14,814	5 5%	$4,052	10 5%	$16,178	6 1%	$5,313	4 1%	$4,684	2 0%	$45,041	8 1%
1996-97	15,629	5 5%	4,494	10 9%	17,028	5 3%	5,525	4 0%	4,758	2 0%	47,434	5 3%
1997-98	16,418	5 1%	5,001	11 3%	17,102	0 4%	5,746	4 0%	4,833	2 0%	49,101	3 5%
1998-99	17,174	4 6%	5,586	11.7%	17,886	4 6%	5,976	4 0%	4,909	2 0%	51,532	5 0%
1999-00	17,886	4 2%	6,257	12 0%	18,905	5 7%	6,215	4 0%	3,988	2 0%	53,251	3 3%
2000-01	18,548	3 7%	7,008	12 0%	19,738	4 4%	6,526	5 0%	4,067	2 0%	55,887	5 0%
2001-02	19,197	3 5%	7,849	12 0%	20,662	4 7%	6,872	5 3%	4,149	2 0%	58,729	5 1%
2002-03	19,869	3 5%	8,790	12 0%	21,618	4 6%	7,257	5 6%	4,232	2 0%	61,767	5 2%
2003-04	20,565	3 5%	9,845	12 0%	22,757	5.3%	7,685	5 9%	4,316	2 0%	65,169	5 5%
2004-05	21,285	3 5%	11,027	12 0%	24,049	5 7%	8,161	6 2%	4,403	2 0%	68,924	5 8%
2005-06	22,029	3 5%	12,350	12 0%	25,342	5 0%	8,692	6 5%	4,491	2 0%	72,904	5 8%

1 Includes the Department of Education and various other non-Proposition 98 expenditures

Source Governor's Budgets; CPEC staff analysis

by both governmental action and market forces, and that congressional and State action will reduce the rate of increase in welfare expenditures in the next several years In spite of these prospects, considerable upward cost pressure continues to exist The Commission's conclusion is that the annual growth rate for the past nine years (5 5 percent) will continue for the next two years, then decline for the next three years to the rate over the past six years (3 7 percent), and finally move to 3 5 percent, just above the projected annual rate of change in the Consumer Price Index (3 3 percent)

3 For the Youth Authority and Corrections, the average annual spending increase for the past eight years was 10 5 percent Discussions with the Department of Corrections indicate that this is probably reasonable for the short term, although expenditures could be slightly higher (see High Expenditure Alternative) In subsequent years, however, expenditures are expected to grow to 12 0 percent per year as the effects of "Three Strikes" become more noticeable Even this, however, is substantially less than estimates as high as 15-20 percent per year that have been widely predicted in the wake of the "Three Strikes" initiative The downward adjustment is due in part to the inherent difficulties associated with such rapid growth -- the time required to construct prisons and hire and train large numbers of personnel -- but also because caseload increases appear to be lower under the "Three Strikes" law than originally forecast by the Department of Corrections The baseline scenario assumes annual expenditure increases starting at 10 5 percent per year, increasing gradually to 12 0 percent

by 1999-00, then continuing at 12 0 percent through 2005-06

4 As of 1993-94, total K-12 spending (slightly more than Proposition 98 local assistance funding), represented 34 2 percent of General Fund expenditures In this baseline scenario, it is assumed that General Fund K-12 spending will grow according to Test Two of Proposition 98 (Appendix B) Such a scenario increases K-12's share of the General Fund from its current level of 36 0 percent of General Fund expenditures (1994-95) to 39 7 percent in 2005-06 This relatively modest increase in K-12's share of General Fund expenditures is made possible by the projected strong growth in property tax revenues that are projected at 6 0 percent per year by 1998-99, 7 0 percent per year by 2000-01, and 8 0 percent per year for 2004-05 and 2005-06 Should this growth not materialize, it is possible that there will be increased pressure on the General Fund Should local tax growth be stronger, of course, the converse would be true

5 State support for Higher Education has grown by an average of 4 1 percent over the past fifteen years, but only 2 3 percent over the last 10 years, in the past five years, it has declined by an average of 1 8 percent per year The Governor has proposed a "Compact" for higher education that will increase expenditures by 4 0 percent per year for the next four years For this projection, the Governor's 4 0 percent figure has been used through 1999-00, followed by a gradual increase to 6 5 percent to reflect stronger projected enrollment growth after 1999-00

6 The "Other Governmental Functions" category has declined by an average of 3 1 percent per year for the past five years, a phenomenon the Commission believes cannot continue indefinitely Nevertheless, the Commission believes this category will probably grow at less than the rate of inflation over the next ten years, so a rate of 2 0 percent has been chosen, which is just slightly above the annual growth rate for this category over the past ten years (1 5 percent)

7 The State's current $4 billion debt represents a special circumstance in this projection The Governor's Budget anticipates repayment of $1,025,000 in the budget year It is assumed that the debt will be retired over a four-year period, with the result that $1 0 billion has been added to the "Other Governmental Functions" category for the years 1995-96 to 1998-99

The baseline scenario for the next 10 years shows General Fund revenue exceeding the baseline expenditure projection by $1 1 billion ($74 0 billion - $72 9 billion) by 2005-06 It also exceeds the high alternative revenue projection for that year, $77 1 billion, by $4 2 billion, but falls short of the low alternative revenue projection by $2 0 billion This range -- a $4 2 billion surplus to a $2 0 billion deficit -- by the projection's final year, 2005-06, suggests that further economies, favorable court decisions, or increased revenues may be necessary to finance essential State services, including the enrollment increases projected for higher education over the next ten years

As of 1995-96, it may appear that the $1 1 billion surplus in the General Fund noted in the previous paragraph is generous, especially in light of the austerity of the past

five years It should be remembered, however, that such an amount constitutes no more than a prudent reserve, and one that could be wiped out by a single natural disaster, an adverse court decision, or an erroneous expenditure projection, circumstances with which Californians are familiar Further, the $1 1 billion represents only 1 4 percent of projected General Fund revenue for 2005-06

Low Spending Alternative Assumptions

1 Actual and estimated spending for 1993-94 and 1994-95 has been drawn from the Governor's Budget for 1995-96 Subsequent years, including 1995-96, are based only on the projections, and not on the Governor's proposals for the 1995-96 budget year

2 For Health and Welfare, this alternative assumes that efforts to reduce spending for Health and Welfare will be more successful Possibly aided by Congressional action to give states more flexibility, as well as by various cost-control measures, this alternative assumes spending increases will slowly decline from 5 0 percent per year to 3 0 percent

3 For Corrections and the Youth Authority, this alternative assumes that various cost cutting measures will be successful, and that spending growth will consequently increase from 10 0 percent to 10 5 percent by the turn of the century, then level off at 10 5 percent for subsequent years

DISPLAY 70 Projection of General Fund Expenditures, 1995-96 to 2005-06 (Low Alternative)

	Health and Welfare		Corrections		State Operation K-12 Education[1]		Higher Education		Other Govt Functions		Totals	
Year	Amount (Millions)	Pct. Chg.	Amount (Millions)	Pct Chg.	Amount (Millions)	Pct. Chg.	Amount (Millions)	Pct. Chg.	Amount (Millions)	Pct. Chg.	Amount (Millions)	Pct. Chg.
1995-96	$14,744	5 0%	$4,034	10 0%	$16,178	6 1%	$5,313	4 1%	$4,684	2 0%	$44,952	8 1%
1996-97	15,452	4 8%	4,491	10 1%	17,028	5 3%	5,525	4 0%	4,758	2 0%	47,254	5 1%
1997-98	16,163	4 6%	4,967	10 2%	17,102	0 4%	5,746	4 0%	4,833	2 0%	48,811	3 3%
1998-99	16,874	4 4%	5,484	10 3%	17,886	4 6%	5,976	4 0%	4,909	2 0%	51,129	4 8%
1999-00	17,583	4 2%	6,043	10 4%	18,905	5 7%	6,215	4 0%	3,988	2 0%	52,733	3 1%
2000-01	18,286	4 0%	6,647	10 5%	19,738	4 4%	6,495	4 5%	4,067	2 0%	55,233	4 7%
2001-02	18,981	3 8%	7,299	10 5%	20,662	4 7%	6,820	5 0%	4,149	2 0%	57,910	4 8%
2002-03	19,664	3 6%	7,999	10 5%	21,618	4 6%	7,161	5 0%	4,232	2 0%	60,674	4 8%
2003-04	20,333	3 4%	8,751	10 5%	22,757	5 3%	7,519	5 0%	4,316	2 0%	63,676	4 9%
2004-05	20,983	3 2%	9,556	10 5%	24,049	5 7%	7,895	5 0%	4,403	2 0%	66,886	5 0%
2005-06	21,613	3 0%	10,416	10 5%	25,342	5 4%	8,289	5 0%	4,491	2 0%	70,151	4 9%

1 Includes the Department of Education and various other non-Proposition 98 expenditures

Source Governor's Budgets, CPEC staff analysis

4 For K-12, it is assumed that Proposition 98 will not be amended If that turns out to be true, and California's economy continues to experience the modest economic growth projected by the UCLA Business Forecasting Project, then there is reason to believe that Test Two will be applicable throughout the projection Given that, and the fact that non-Proposition 98 education spending at the elementary and secondary level is projected to grow by no more than a very modest 2 0 percent, the low alternative projection is the same as the baseline projection

5 For Higher Education, costs could be reduced if efforts currently under way to increase productivity are successful In addition, various technological applications could have a greater impact in the early years of the next decade than they do at present, and could produce additional efficiencies at precisely the time that large enrollment increases are anticipated to occur Further, if fees continue to increase, or other factors such as budgetary constraints become more evident than envisioned in the baseline projection, enrollment could more nearly approximate the Commission's low alternative enrollment projection Accordingly, the spending projection is reduced to 5 0 percent annual growth for the final five years of the projection

6 The "Other Governmental Functions" category remains unchanged in this alternative at 2 0 percent annual growth, since it is already at less than two thirds of the rate of inflation

7 Debt repayment is a set obligation of the State of California There is consequently no change in the projection that the $4 billion in Revenue Anticipation Warrants (RAW's) will be repaid over four years

The low alternative spending scenario for the next 10 years shows General Fund expenditures of $70 2 billion in 2005-06, which is well within the baseline revenue projection of $74 8 billion. Such a scenario would permit California to fund numerous program improvements in education and elsewhere, and perhaps even to retire a portion of bonded debt or to place certain capital outlay functions on a pay-as-you-go basis It should be noted, of course, that if the low alternative revenue projection turns out to be closer to reality, the $4 8 billion surplus created by the low spending alternative would be reduced to a minuscule $710 million, which is less than required for a prudent emergency reserve

High Spending Alternative Assumptions

1 Actual and estimated spending for 1993-94 and 1994-95 has been drawn from the Governor's Budget for 1995-96 Subsequent years, including 1995-96, are based only on the projections, and not on the Governor's proposals for the 1995-96 budget year

2 For Health and Welfare, this alternative assumes that various efforts to reduce spending will not be as successful as in the other scenarios, and that spending will continue at historical rates that are considerably above inflation The aver-

DISPLAY 71 Projection of General Fund Expenditures, 1995-96 to 2005-06 (High Alternative)

	State Operation											
	Health and Welfare		Corrections		K-12 Education[1]		Higher Education		Other Govt Functions		Totals	
Year	Amount (Millions)	Pct. Chg.	Amount (Millions)	Pct. Chg.	Amount (Millions)	Pct. Chg.	Amount (Millions)	Pct. Chg.	Amount (Millions)	Pct. Chg.	Amount (Millions)	Pct Chg
1995-96	$14,885	6 0%	$4,070	11 0%	$16,178	6 1%	$5,314	4 1%	$4,648	1 0%	$45,094	8 4%
1996-97	15,763	5 9%	4,534	11 4%	17,049	5 4%	5,473	3 0%	4,684	1 0%	47,503	5 3%
1997-98	16,677	5 8%	5,069	11.8%	17,122	0 4%	5,637	3 0%	4,721	1 0%	49,227	3 6%
1998-99	17,628	5 7%	5,688	12 2%	17,907	4 6%	5,806	3 0%	4,758	1 0%	51,787	5 2%
1999-00	18,615	5 6%	6,404	12 6%	18,926	5 7%	5,981	3 0%	3,796	1 0%	53,722	3 7%
2000-01	19,639	5 5%	7,237	13 0%	19,759	4.4%	6,166	3 1%	3,834	1 0%	56,635	5 4%
2001-02	20,699	5 4%	8,207	13 4%	20,685	4 7%	6,363	3 2%	3,872	1 0%	59,826	5 6%
2002-03	21,796	5 3%	9,339	13 8%	21,641	4 6%	6,573	3 3%	3,911	1 0%	63,261	5 7%
2003-04	22,930	5 2%	10,665	14 2%	22,781	5 3%	6,797	3 4%	3,950	1 0%	67,122	6 1%
2004-05	24,099	5 1%	12,222	14 6%	24,073	5 7%	7,035	3 5%	3,990	1 0%	71,418	6 4%
2005-06	25,304	5 0%	14,056	15 0%	25,366	5 4%	7,288	3 6%	4,029	1 0%	76,043	6 5%

1 Includes the Department of Education and various other non-Proposition 98 expenditures

Source Governor's Budgets, CPEC staff analysis

age annual increase in this category over the past 10 years is 6 4 percent, a 6 0 percent rate is assumed for 1995-96, which is reduced more slowly than in the other alternatives, ultimately reaching the level of 5 0 percent annual increases by 2005-06 Such increases are all above the predicted rate of inflation of 3 3 percent

3 For Youth and Adult Corrections, this alternative assumes that cost cutting measures will not be successful, and that incarceration rates will not only be high but that annual increases will increase markedly over the course of the projection Based on discussions with Department of Corrections' analysts, and in light of historical trends, a rate of 11 0 percent for the first year has been chosen, which grows to an annual rate of increase of 15 0 percent by 2005-06 This projection is more in line with the Rand Corporation study (Greenwood, et al , 1994), which suggests that Youth and Adult Corrections could occupy as much as twenty-one percent of the State budget by 2004-05, compared to nine percent in 1995-96. Should this alternative be accurate, Corrections spending would equal 18 4 percent of General Fund expenditures by 2005-06 A crucial ingredient in this projection is the assumption that funds will be made available to construct a sufficient number of prisons to house both the inmates and the personnel who will need to be hired to supervise them If such funds cannot be provided, it is possible that other alternatives would come into play, such as further overcrowding in existing facilities, greater use of county jails, or

perhaps court orders that might negate portions of the "Three Strikes" law and result in the release of some prisoners Such measures could reduce the rate of cost increases considerably

4 The high alternative for K-12 spending assumes the same numbers for Proposition 98 as in the baseline and low alternative scenarios The only change is in the non-Proposition 98 K-12 category, which is projected here to increase by 3 0 percent per year instead of the 2 0 percent projected in the other alternatives The effect of this change, however, is virtually insignificant in comparison to total K-12 spending

5 For Higher Education, and because of pressures from Health and Welfare and Corrections, it is assumed that the Governor's "Compact" will be eroded down from 4 0 percent to 3 0 percent through 1999-00, then increase very slowly due to the surge of students anticipated to desire enrollment in 2000 and thereafter Because of the high spending requirements in other sectors, this "High Alternative" actually produces a reduction in postsecondary education spending

6 The "Other Governmental Functions" category is also decreased from a 2 0 percent annual growth rate to only 1 0 percent, again due to higher spending on Health and Welfare and Corrections The primary point for both Higher Education and Other Governmental Functions is that overall spending cannot exceed revenue to any significant degree, thus, while this is a high spending alternative, it is a selective one

7 The debt repayment is a set obligation of the State of California There is consequently no change in the projection that the $4 billion in Revenue Anticipation Warrants will be repaid over four years

The high spending alternative scenario for the next ten years shows General Fund expenditures exceeding the baseline revenue projection by $2 0 billion ($76 0 billion - $74 0 billion) by 2005-06 If the high revenue alternative is matched to the high expenditure alternative, there should be a surplus of $1 0 billion, barely enough for a prudent reserve If the low revenue and high expenditure projections are realized, the deficit in 2005-06 would be $5 2 billion

Reliability of the projections

It hardly need be emphasized, of course, that much could happen to change these projections So many variables are involved in the projection of any spending or revenue scenario that the only certainty is that the projection will be in error by some unspecified amount Yet there is some hope that at least the revenue projection will be within a tolerable range of variance As noted earlier, it is based on Personal Income growth, which has been a relatively dependable indicator of General Fund revenue in California That history makes it probable that reality will approximate the projection over the full ten-year range of the projection

Expenditures are less predictable since they depend so heavily on the vagaries of human decisions Yet even for expenditures, there is something of a hidden control, for even if individual budgets oscillate from year to year, the totality of spending

must ultimately be governed by the availability of revenues Unfortunately, there is only one scenario under which public higher education will prosper over the course of the next decade the possible combination of the high revenue and low spending alternatives, which is unlikely For the next ten years at least, stringency and austerity will probably be the operative words, not just for higher education, but for most State services Even at that, however, and assuming economies and perhaps new technologies can reduce the cost of education, there is at least a reasonable chance that all of the students projected by the Commission to desire attendance can be enrolled and educated in a quality environment

7 Capital Outlay Funding: A Discussion of Options

Introduction

Even if General Fund revenues are available to hire the faculty and provide for the education of several hundred thousand additional students, however, there will still be an additional need for capital outlay funding to build the buildings and provide the infrastructure for a quality educational experience As great as is the challenge on the operations side of the budget, the challenge to finance capital outlay needs may be greater From the discussion in Part Five of this report, it appears that about $1 billion per year, in today's dollars, will be needed to fully finance higher education's capital needs in two categories (1) maintaining the existing physical plant, and (2) constructing sufficient facilities to educate the projected enrollment growth of 455,190 students that is expected to occur in the next ten years If the Commission's low alternative enrollment projection of 330,035 turns out to be more accurate, then capital outlay needs could be lowered, but probably by no more than $150 million per year. Yet even if capital requirements turn out to be several hundred million dollars per year lower, an annual need of $700 to $800 million would still represent a substantial challenge to the Governor, the Legislature, and the people of California in an era of fiscal stringency, moderate revenue growth, and growing debt service to retire previously sold bonds In this section of the report, the Commission discusses a number of possible financing options

Option One: State bonds -- either general obligation or lease payment

Traditionally, California has funded the construction of its physical infrastructure from many different revenue sources. For streets and highways, revenues have come from gasoline tax revenues, federal highway trust funds, and some local bonding efforts, general obligation bond issues have occasionally been used, but principally for mass transportation projects In most other areas, including prisons, elementary and secondary schools, higher education, and parks, general obligation bonds have been popular For higher education in the years between 1966-67 and 1987-88, revenue from tidelands oil leases was available to provide some of the needed support -- funds were deposited in the Capital Outlay Fund for Public Higher Education (COFPHE), generally known as the "coffee fund" -- although supplements from bond funds or the General Fund were common In those 22 years, a total of $967 8 million was drawn from the tidelands oil source In all, in the 29-year period since 1965-66, and excluding 1994-95 because of the failure in June 1994 of Proposition 1C -- a $900 million bond issue -- higher education has received $12.9 billion in funds for the construction of facilities and infrastructure, as indicated in Display 72 Of that total, $6 5 billion came from the State, with over four-fifths of that from bonds There has been little assistance from the federal government, and virtually none since the early 1980s Private fund raising

DISPLAY 72 Capital Outlay Expenditures in California Public Higher Education, 1965-66 to 1993-94

	Source of Funds (in Millions of Dollars)						
Segment	COFPHE[1]	State GO Bonds[2]	Other State Bonds[3]	Federal Funds[4]	Other Non-State Funds[5]	CCC District Funds	Total
University of California	$355 0	$1,270 3	$944 4	$107 9	$4,936 2	N/A	$7,613 8
California State University	424 2	993 9	881 6	94 4	850 8	N/A	3,244 9
California Community Colleges	188 6	578 8	838 5	25 9	N/A	417 3	2,049 1
Totals	$967 8	$2,843 0	$2,664 5	$228 2	$5,787 0	$417 3	$12,907 8
29-Year Annual Average	$33 4	$98 0	$91 9	$7 9	$199 6	$14 4	$445 1

1 Capital Outlay Fund for Public Higher Education The final appropriation from this fund occurred in 1987-88

2 General Obligation Bonds Due to the failure of Proposition 1C in June 1994, 1994-95 expenditures are not included

3 Lease-payment bonds authorized by the Legislature for specific purposes

4 Principal source was the Higher Education Facilities Act of 1966

5 Bequests and donations from private citizens, foundations, and corporations

6 These funds, which include only those used to match State funds, ceased to be significant after the passage of Proposition 13 in 1978

Source Fiscal Profiles, 1994

has grown considerably in recent years, with the University of California raising most of it (85 3 percent)

Since 1976, the voters of California have approved a total of $2 5 billion in general obligation bonds for higher education, as shown in Display 73 Annual capital outlay appropriations for higher education over the past 15 years, with funding sources, are shown in Display 74 on page 120

It is evident from Display 73 that voter resistance to the continuing sale of bonds is growing, although the reasons for that resistance are not entirely clear For three straight biennial elections from November 1986 to June 1990, the voters agreed to the sale of between $450 and $600 million in General Obligation (GO) bonds In 1990, a $900 bond issue was proposed, with half of that amount to be submitted in June and the other half in November The first election proved successful, but the second resulted in the first defeat of a bond issue since the 1960s In June 1992, however, the voters again registered approval by a narrow margin, but followed that with a refusal to issue bonds for any purposes in the June 1994 primary election It was in that election that the voters defeated a K-12 bond issue for the first time in the State's history Accordingly, the continuation of bond financing for higher education facilities should be examined carefully, from the points of view of both political viability and fiscal prudence Whether or not the people of California will approve general obligation bond issues in the future is uncertain, but if the State decides to propose them, it should at least be confident that the proposal itself is a fiscally responsible act

DISPLAY 73 General Obligation Bonds Approved by California Voters Since 1976

Month and Year of the Election	Amount Approved by the Voters	Amount Disapproved by the Voters	System[1]
November, 1976	$150,000,000		CCC
November, 1986	400,000,000		CCC/CSU/UC
November, 1988	600,000,000		CCC/CSU/UC
June, 1990	450,000,000		CCC/CSU/UC
November, 1990		$450,000,000	CCC/CSU/UC
June, 1992	900,000,000		CCC/CSU/UC
June, 1994		900,000,000	CCC/CSU/UC
Totals	$2,500,000,000	$1,350,000,000	

1 CCC = California Community Colleges, CSU = The California State University; UC = University of California

Source Office of the Secretary of State

On the issue of responsibility, it is arguable that maintaining and expanding infrastructure through debt financing should be avoided, since it inevitably makes the "purchase" of buildings or other physical facilities more expensive Such an argument, however, if rigidly followed, would have made the construction of vast areas of the educational enterprise impossible to finance, with the result that many thousands of students would not have been educated, important research not conducted, and communities not served in countless ways The result would not only have been a diminution in cultural richness, it would undoubtedly have resulted in a contraction in economic productivity as well

There is, on the other hand, an important lesson to be learned from the federal government's lengthy exercise in deficit spending ongoing, recurring, or permanent programs should not be financed with borrowed money, since such programs become excessively expensive, and with inflationary pressures, constantly increase their costs in an unending spiral By the same token, it is reasonable to finance programs or projects that have defined and limited life spans, such as buildings, since the debt incurred to finance construction can be retired over the life of the structure It will almost certainly cost more in the long run, but if there is a degree of price inflation while the debt is being repaid, which there has been since the Great Depression, the actual cost in "real dollars" will be reduced

For these reasons, it can be stated with confidence that debt in and of itself is neither good nor bad, it depends almost entirely on the circumstances When considering debt for the construction of public facilities, there is also a circumstantial element The principal stated above -- that debt should be used for capital construction on the grounds that it can be retired during the life of the facility -- is normally sound fiscally, but trouble can ensue if the need to construct facilities becomes a permanent obligation over a long period of time In such a circum-

DISPLAY 74 Capital Outlay Expenditures in California Public Higher Education, 1980-81 to 1994-95 (000s)

	University of California			California State University			California Community Colleges		
Year	Gen Oblig Bonds	Other Bonds[1]	Other Funds[2]	Gen. Oblig Bonds	Other Bonds[1]	Other Funds[2]	Gen Oblig. Bonds	Other Bonds[1]	Other Funds[3]
1980-81	$1,340	$9,050	$37,740	$0	$8	$21,284	$0	$0	$18,142
1981-82	4,009	0	8,012	0	315	16,581	0	649	4,970
1982-83	506	0	14,070	0	2,210	11,755	0	494	10,076
1983-84	0	0	7,147	0	1,951	8,075	0	34	10,726
1984-85	89,742	0	49,274	0	-28	18,116	0	6	7,231
1985-86	96,748	0	44,969	0	17,910	35,113	0	270	48,547
1986-87	20,923	0	3,519	59,294	27,927	5,307	32,371	0	9,532
1987-88	128,373	29,858	0	63,776	36,808	5,820	31,746	18,134	4,316
1988-89	192,154	56,282	0	118,603	0	1,165	70,539	0	4,827
1989-90	42,722	102,497	0	115,395	71,513	14,991	39,873	69,980	5,959
1990-91	105,710	112,624	0	82,126	129,815	3,761	93,364	97,605	0
1991-92	59,038	144,391	0	32,322	110,229	1,530	9,535	93,089	0
1992-93	94,894	106,643	0	131,535	92,535	4,045	113,912	0	0
1993-94	193,424	95,364	0	149,982	90,031	12,095	161,198	263,709	0
1994-95	830	4,886	0	0	28,870	0	0	14,324	0
Totals	$1,030,413	$661,595	$164,731	$753,033	$610,094	$159,638	$552,538	$558,294	$124,326

1 Includes both State lease-payment bonds and some special fund financing

2 Other funds consist primarily of the Capital Outlay Fund for Public Higher Education (COFPHE) and some federal funds Of the total in "Other Funds," for all three systems, only $1,767,000 (0 4%) is from the federal government

3 Includes COFPHE funds and local district funds The community colleges received no federal money during the period shown Total COFPHE funds $88,103,000, Total district funds $36,223,000

4 For 1994-95, the Legislature appropriated $160 8 million for the University of California, $125 4 million for the California State University, and $180 3 million for the California Community Colleges When Proposition IC lost, the June 1994 General Obligation bond issue ($900 million), these appropriations were virtually eliminated

Sources CPEC, 1994b and Governor's Budget, 1995-96

stance, retired debt is simply replaced by larger debt Eventually, government may find that the debt itself has become a mountain that cannot be moved in the absence of severe reductions in other areas of the budget This is, more or less, the dilemma currently facing the President and Congress with regard to the annual federal deficit and the national debt, and, without restraint, could become the dilemma facing policy makers in Sacramento In addition, at least for state governments, excessive debt can also have the effect of lowering credit ratings, which raises interest rates and makes the debt even more difficult to finance

Appendix C presents a more detailed exposition of the issues surrounding bonded debt, and projects possible debt levels out to the year 2015, the analysis indicates that it is unrealistic to believe that California can sell more than $2 0 to $2 5 billion in bonds per year in today's dollars It also shows, based on a survey by the Legislative Analyst, that California has a total capital outlay need for about $5 4 billion per year, excluding transportation costs, since highway construction and maintenance are funded almost entirely from gasoline tax revenues The Analyst lists higher education's share at $1 3 billion, or about a fourth of the total The Commission believes higher education's needs are lower than this, about $1 0 billion per year, but even with that lower number, it is clear that higher education's needs cannot be met in their entirety by bond sales This is true regardless of whether voter-approved general obligation bonds or legislatively authorized lease-payment bonds are used, although somewhat more money could be raised by general obligation bonds, since debt service is lower If higher education received a fourth of total bond proceeds, it should produce an annual amount of $500 to $600 million Such an amount is somewhat more than the Governor proposed in the 1995-96 Governor's Budget as submitted in January ($339 6 million) Given the distribution of those funds, however, with $160 9 million going to the University of California, $133 9 million to the California State University, and only $44 8 to the California Community Colleges, it is clear that many needs will remain unmet, and it is by no means clear that the Legislature will agree to appropriate even that much The unmet need problem is particularly severe in the Community Colleges, since all of the funds earmarked for that system will go only for equipment to open already constructed buildings No funds are available for renovations, replacement of obsolete buildings, equipment replacement, retrofits, seismic repairs, health and safety projects, or enrollment growth For those projects, the Board of Governors submitted a $271 0 million request for 1995-96, a request that was reduced by nearly half from the average of five-year plan projections submitted over the previous three years

Option Two: Local bond issues

Local bond issues are an option for community college districts, although a limited one Local bond issues must secure a two-thirds majority for approval, a support level that has been achieved by only three districts in the past two decades and perhaps longer At one time -- the Commission's records go back to 1965 and show substantial local financing from that year through the mid-1970s when the tax revolt began -- there was considerable local financing, much of which was used to match State funds Unfortunately, the two-thirds voting requirement, in concert with strong voter resistance to new taxes, has effectively foreclosed this option for at least the near term The Commission has recommended that the "supermajority" requirement be lowered to no more than 60 percent and preferably to a simple majority, but even with a 60 percent requirement, passage of a large number of bond issues would still be difficult (CPEC 1995, p 4)

Nevertheless, there is a substantial amount of local bonding capacity available Section 15106 of the Education Code provides that any community college district may issue bonds up to a limit of 2 5 percent of its assessed valuation Cur-

rently, bonded debt in most districts is zero or negligible, so there is at least the potential to address many district needs through local bonds As noted, however, without a change in the State constitution, that potential will be difficult to realize

Option Three: Mello-Roos districts

The Mello-Roos Community Facilities Act of 1982 permits special districts to be created (known as Community Facilities Districts or CFD's) for the purpose of issuing bonds to finance the construction of public facilities needed by the district Debts are serviced through tax levies on property located within the district No bonds may be amortized for more than 40 years If a Mello-Roos district is formed, either by a petition signed by 10 percent of the proposed district's voters or landowners, or by resolution of the local legislative body (e g the County Board of Supervisors), a bond issue can be proposed Like all local bonds, these bonds must be approved by two-thirds of the electorate

There is an alternative to such an election however, and it is that alternative that has made Mello-Roos districts popular in some circumstances If there are 12 or fewer registered voters in the proposed district, which is not uncommon in rural areas, a two-thirds majority vote of the landowners in the area is all that is required to issue the bonds and approve the tax to retire the bonds Each landowner involved gets one vote for each acre of land owned In some rural areas, such a provision makes the funding of certain kinds of projects feasible, particularly because the taxes levied on the property to finance the bonds are specifically defined as not being ad valorum taxes, this was done deliberately to circumvent the requirements of Proposition 13

Mello-Roos districts have certain advantages, but as a practical matter, they can only be used effectively in rural areas with few property holders, most of whom agree to levy the taxes necessary for bond debt service In urban areas with large numbers of voters, the difficulties encountered in obtaining the two-thirds vote are just the same as for a regular local bond issue, but with the added problem that Mello-Roos bonds tend to be sold for slightly higher interest rates Accordingly, however useful it may be in situations with uncommon circumstances, Mello-Roos is not a viable option for financing a significant percentage of community college capital outlay needs

The Mello-Roos legislation has often been used to develop housing subdivisions, since there is often a single property owner (or only a few) who create the district, sell the bonds for development, and then amortize the bonds through sales to people who purchase homes Recently, the future of this technique has been rendered uncertain, since the Internal Revenue Service is exploring whether the bonds issued in this way are really municipal instruments and therefore tax exempt If IRS rules that they are not exempt, Mello-Roos bonds may lose what limited popularity they now enjoy

Option Four: The General Fund

In past years, small amounts of General Fund money have been appropriated to the COFPHE Fund and then passed through to higher education In the present

climate, however, the Commission knows of no responsible individual, agency, or group that is proposing to finance capital outlay through the General Fund In fact, every estimate of General Fund expenditures developed over the past several years makes almost no allowance for capital spending from that source for any purpose (a total of $5 0 million in General Fund capital outlay spending is anticipated in the current year, with $16 4 million proposed in 1995-96) Even for the support budget, higher education's share of the General Fund has dropped from a high of 17 7 percent in 1972-73, and a more recent high of 15 9 percent in 1984-85, to its current level of 12 3 percent in 1994-95 (CPEC, 1994b) Accordingly, it is difficult to give serious consideration to the General Fund as a revenue source for higher education capital outlay

Option Five: Earmarking a portion of General Fund revenues

Proposition 98 is the best known example of earmarking, but the Commission has never considered the creation of set-asides to be a viable public policy, the Commission was the only State agency to adopt a formal resolution opposing the adoption of Proposition 98 in 1988 Guaranteed funding levels have an obvious appeal, but there are a number of problems inherent in the proposal, especially the fact that spending "floors" often tend to become ceilings For capital outlay spending, it is not possible to determine needs by relying on percentages of a base, since capital projects must be considered individually, and because spending varies so much from year to year To create a set-aside for this purpose, especially if a similar guarantee is not simultaneously made for the support budget, could well result in a shortage of funds in one year and a surplus in another

In addition to this problem, the whole question of guaranteed funding is currently under consideration by the Constitutional Revision Commission, which may recommend either the elimination or modification of the process For capital outlay, it appears not to offer a workable option

Option Six: Higher taxes

Given current political realities, the possibility of raising taxes at any level to support capital outlay must be considered virtually nonexistent Not only are higher taxes not being proposed, there are strong proposals from the Governor to reduce personal income taxes by five percent per year over the next three years -- for a total of 15 percent by the third year -- and to reduce corporate income taxes from the current 9 3 percent rate to 7 9 percent by 1988 Given those proposals, and the considerable support they enjoy from the public, the possibility of increasing taxes for any purpose, including capital outlay, cannot be seriously considered

Option Seven: Lease-purchase agreements

From time to time, the possibility has been considered of contracting with private developers to have the developers build the buildings, lease them to the college or university in question, and then eventually turn the building over after some period of years This alternative could warrant some additional exploration, but it has not been widely used in the past principally because it usually turns out to be an even more expensive alternative than bond financing Nevertheless, and particu-

larly in light of the Governor's suggestion that some State functions might be privatized, this possibility might be explored further

Option Eight: Private fund raising

As noted in Display 72, between 1965-66 and 1993-94, 85 3 percent of the funds raised from private sources have accrued to the benefit of the University of California, although the State University has been more successful in recent years than in the more distant past In addition, most of the money raised by the University of California has not been for regular academic buildings but for special projects such as museums, theaters, student unions, and athletic facilities The problem is that donors often want recognition for their money, and that leads to earmarked donations for special facilities that are not part of the academic core of the campus Most donors are unwilling to donate funds for projects that, however essential, have a rather mundane image (e g renovating a classroom building, constructing faculty offices, building a new research laboratory) Significant sums have been raised for such academic facilities as the new School of Business at Berkeley or the engineering complex at San Jose State, but in most cases, private fund raising has been employed as a supplement to a much larger share provided by the State Even community college districts have been successful of late in getting private developers to donate land for new campuses and educational centers, although such donations are often made in the hope that the creation of a new community college, constructed with State funds, in one section of a large development will enhance property values in the remainder of the development

Like many other fund sources, private fund raising will always have its place, but it is unlikely that it will ever finance more than a small percentage of higher education's basic capital outlay needs statewide

Option Nine: State and Local/ Private Matching

Given the difficulty of meeting all of public higher education's capital outlay needs from State resources, the idea of matching State resources with local or private fund raising efforts might be considered State and local matching was relatively routine for the California Community Colleges many years ago, but fell out of favor after Proposition 13 made it very difficult to adjust property tax rates to raise the local share Now, however, with severe constraints on all State funding sources -- certainly including the General Fund and bonded debt -- and with a very large untapped reservoir of local bonding capacity, the idea of matching State funds with an equal share of local funds may become increasingly popular within the community college system

Such a proposal might help secure passage of local bond issues, since it could be argued to local voters that the bonds they are approving will be enhanced by State contributions Further, when statewide bond issues are offered to the electorate for approval, a similar argument of doubling the actual amount of the bond issue might secure sufficient additional votes to gain overall approval for the measure This idea is currently under active consideration by the Chancellor's Office

For the two public university systems, local bond issues are not an option, but at

least at the University of California, the idea of matching private contributions with State funds should probably be examined Potential contributors, not unlike local voters, might find the idea of their funds being enhanced by the State to be worthwhile, and consequently offer gifts and bequests that might not otherwise have been obtained This idea may have less appeal to the California State University, since its fund-raising efforts tend to be of a lesser magnitude than at the University of California, but it could lead to stronger fund-raising in that system as well

Option Ten: Student fees

Few proposals for the financing of capital outlay are more controversial than the suggestion that student fees be increased to provide for either the construction or the maintenance of the physical plant Given the increases in student fees over the past four or five years, an additional fee for capital outlay purposes would be extremely unpopular In spite of that, and in the interests of considering every financing possibility, the issue is discussed in brief Display 75 shows the amounts various fee levels could generate if a third of the potential revenue was reserved for fee waivers or other forms of financial aid for needy students It also assumes enrollment losses of 2 percent of the projected FTES for each $100 of fees in the Community Colleges, one percent in the State University, but no attrition at the University of California While such losses would probably be a short-run phenomenon -- the "sticker shock" effect -- some students would undoubtedly be lost permanently because of the fee

It is apparent from Display 75 that significant amounts of money could be raised for the State University and the University, while very large sums would accrue to the Community Colleges In the two-year system, a $300 fee -- $10 00 per unit -- would not only go a long way toward meeting most of the Community Colleges' estimated needs over the next 10 years, it would still keep that system well below national averages for student charges, and would also provide for a large amount of student financial aid funding As noted in Chapter Five of this report, the Community Colleges' projected annual capital outlay needs are about $330 million per year A $10 per unit fee could provide just under half of that amount ($150 8 million)

Option Eleven: More Intensive Space Utilization

The Commission studied space and utilization standards in depth from 1987 to 1990, and found that California already maintains the highest utilization standards in the nation (CPEC 1990c) Nevertheless, there is evidence that many classrooms and laboratories are not used intensively in the afternoons in particular, and in some cases, in the evenings as well Greater utilization is a complex issue, but given the great strain on capital outlay resources, it may be well to revisit the area to see if greater efficiencies are possible

Option Twelve: Year-Round Operation

Year-round operation has been studied on numerous occasions since the 1960s, and the conclusions have often been controversial All of the studies have concluded that year-round operations will save money on the capital outlay side of the budget, but those that have also examined the support budget side of the equation

DISPLAY 75 *Potential Revenue to be Raised by a Facilities Fee at the California Community Colleges, the California State University, and University of California, 1994-95*

System	Full-Time-Equivalent Students[1]	Annual Fee	Annual Revenue Raised[2]
California Community Colleges[3]	802,251	$100	$52,413,732
		200	102,688,128
		300	150,823,188
		400	196,818,912
The California State University[4]	238,106	$100	$15,714,966
		200	31,112,458
		300	46,192,476
		400	60,955,020
University of California	153,879	$100	$10,258,595
		200	20,517,191
		300	30,775,786
		400	41,034,382

1 1994-95 estimate for UC and CSU Fall 1994 estimate for the CCCs
2 One third of the revenue raised deducted for student financial aid
3 For each $100 in fees, FTES enrollment is reduced by two percent
4 For each $100 in fees, FTES enrollment is reduced by one percent.

Source CPEC staff analysis.

have concluded that the increase in support budget costs occasioned by small class sizes during the summer term, and the replacement of student fee support with State support, more than cancels any possible savings that may come about in capital outlay spending Again, however, the strain on capital outlay budgets is so severe that it may be useful to examine year-round operations further

Option Thirteen: Technology

Technological applications to higher education's myriad functions have been underway for years Computers have nearly revolutionized library and administrative functions throughout higher education, and have provided numerous enhancements in both teaching and research laboratories It may be fairly stated that higher education as a whole is becoming increasingly comfortable with technological applications, particularly computers, but it does not appear that such applications have had a large impact on the efficiency and cost of education Thus far, it appears that technology has enhanced education, but not reduced its cost

The challenge for the future will be to find technological applications that can maintain or enhance quality at the same time that they reduce cost This might possibly occur through the use of multi-media instructional packages that will permit students to advance at their own pace and possibly complete courses in less time Such packages might also be useful for remedial education When used in concert with either broadcast or cable television in the home or at remote locations, the need for facilities could be reduced

Interactive television is another possibility for reducing the need for facilities, and possible reducing support budgets as well Up to now, most uses of instructional television have tended to expand access rather than reduce costs, but it is clear that much more study is needed to see if greater efficiencies are possible At this point, various technological applications offer tantalizing prospects for both the enhancement of educational quality and the reduction of cost, but they are in their early stages of widespread application, and it cannot therefore be promised that technology will alleviate many of higher education's most difficult cost pressures in the near future

Summary These 13 techniques for increasing capital outlay funding, or lowering capital outlay requirements, are the only ones known to the Commission, and many of them are clearly unrealistic. Given a need of just over $1 0 billion a year for the next 10 years, or even a need somewhat below that, the Commission knows of no single source that will provide the necessary funding Even taking several sources (e g State bonds, local bonds for the community colleges, private fund raising, matching requirements, and even student fees), it will be exceedingly difficult to raise the required resources to meet projected needs Among all the challenges facing California in the next decade, the maintenance of a healthy infrastructure will probably remain among the greatest

Appendix A Methodology of the Projections

The California State University and the University of California

The Commission's 1995 model of projecting enrollment demand at the California State University and the University of California begins with estimates of first-time freshmen and transfer students based on anticipated demographic changes within California, historical college-going rates, and projected increases in student eligibility The flow of students from entry through final departure from each university system was simulated using actuarial analyses that involve the use of "life tables" as the basis for the study of continuation, attrition, and graduation rates Because these life tables explicitly include the intake of new students, either as first-time freshmen or undergraduate transfers, enrollment demand can be related to projections of community college enrollment, and to the projections of public high school graduates developed by the Department of Finance

The Commission's model controls for four major sources of variation in enrollment demand racial/ethnic group, age-group, level of admission (freshmen or transfer), and college preparation (regular admit or special action admit) Based on the interaction of these four variables, a total of 560 life tables were required in order to project enrollment demand for the two systems The basic steps for projection were

- Enumerating a base student population by racial/ethnic group, basis of admission, college preparation, and years of attendance (from entry through 12 years for the State University and through seven years for the University)
- Applying annual continuation, graduation, and attrition rates to the base population in order to obtain the number of students still enrolled one year later
- Adding in students who left the system without a baccalaureate but who later re-enrolled in the system to continue their education
- Adding the annual number of new admissions
- Repeating the process 16 times for the State University and 12 times for the University in order to estimate enrollment demand through Fall 2005

Example: undergraduate demand at the California State University

Suppose that the California State University admitted 18,000 domestic students as regularly admissible freshmen during the 1989-90 academic year Display A-1 on the next page provides continuation, attrition, and graduation rates in Columns 2 through 4 necessary to estimate re-enrollment demand Column 8 shows a simulated 12-year history of the 1989-90 freshman cohort If the State University enrolled the same number of freshmen each year, then by Fall 2000, and every year thereafter, Column 11 shows that there would 75,054 undergraduate students enrolled in the system who originally entered as first-time freshmen This number is verified by the matrix in Display A-2 on page 131 Since the Commission's mod-

DISPLAY A-1 Example of a Life Table for First-Time Freshmen at the California State University

Columns											
1	2	3	4	5	6	7	8	9	10	11	12
Year	Continuation Rate	Graduation Rate	Attrition Rate	Re-enrolled as an undergraduate. P(x)	Did not re-enroll as an undergraduate. Q(x)	Earned a CSU bachelor's degree. Q''(x)	At year x still enrolled at CSU without earning a bachelor's degree l(x)	Left CSU at year x without earning bachelor's degree d(x)	Earned a CSU bachelor's degree at year x. d''(x)	Year x and over Tx	College year x
1	0 789	0 000	0 211	0 789	0 211	0 000	18,000	3,798	0	75,054	1989-90
2	0 680	0 000	0 109	0 862	0 138	0 000	14,202	1,962	0	57,594	1990-91
3	0 635	0 000	0 450	0 934	0 660	0 000	12,240	810	0	43,392	1991-92
4	0 486	0 050	0 990	0 765	0 156	0 790	11,430	1,782	900	31,152	1992-93
5	0 272	0 244	-0 030	0.560	-0 620	0 502	8,748	-540	4,392	19,722	1993-94
6	0 220	0 122	-0 005	0 568	-0 180	0 450	4,896	-90	2,203	10,974	1994-95
7	0 134	0 082	-0 004	0 498	-0 260	0 528	2,783	-72	1,469	6,078	1995-96
8	0 096	0.035	-0 003	0.580	-0.390	0 459	1,386	-54	636	3,295	1996-97
9	0 083	0 010	0 003	0 701	0 670	0 232	804	54	186	1,909	1997-98
10	0 072	0 008	0 003	0 643	0 960	0 261	563	54	147	1,106	1998-99
11	0 061	0.008	0 002	0.496	0 990	0 405	363	36	147	542	1999-00
12	0 080	0 008	0 002	0 000	0 200	0 801	180	36	144	180	2000-01
Totals		0 568	0 432								

Note The totals of Columns 3 and 4 -- Graduation Rate (0 568) and Attrition Rate (0 432) -- account for all students, since they add to 100 percent.

Source California Postsecondary Education Commission 1995 Baseline Enrollment Demand Projection assumptions

el assumes a different number of entering freshmen each year, the process would have to be repeated 12 times to estimate demand for Fall 2000 and repeated 16 times to estimate demand for Fall 2005 By summing all relevant life tables, total undergraduate demand can be derived This same example could be applied to the University of California, except that the University's life tables would reflect only a seven-year history, since 99 percent of new University students either graduate or permanently discontinue their studies within seven years

The California Community Colleges

In 1990, the California Community Colleges' reporting system changed from a census count to a term-end count of all students who completed at least one-half unit of course credit or who attended a minimum of eight hours of instruction (i e , positive attendance) in a non-credited course Accordingly, the Commission's projections required converting its community college database from a census headcount to a term-end count, so that participation rates calculated by the Commission would match those rates calculated by the Chancellor's Office and the Department of Finance Because of the multifaceted mission of the community col-

DISPLAY A-2 Enrollment Demand Matrix for Undergraduates Entering the California State University as Freshmen

Year	1989-90	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	20 01-02	20 02-03	20 03-04
1	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000	18,000
2		14,202	14,202	14,202	14,202	14,202	14,202	14,202	14,202	14,202	14,202	14,202	14,202	14,202	14,202
3			12,240	12,240	12,240	12,240	12,240	12,240	12,240	12,240	12,240	12,240	12,240	12,240	12,240
4				11,430	11,430	11,430	11,430	11,430	11,430	11,430	11,430	11,430	11,430	11,430	11,430
5					8,748	8,748	8,748	8,748	8,748	8,748	8,748	8,748	8,748	8,748	8,748
6						4,896	4,896	4,896	4,896	4,896	4,896	4,896	4,896	4,896	4,896
7							2,783	2,783	2,783	2,783	2,783	2,783	2,783	2,783	2 783
8								1,386	1,386	1,386	1,386	1,386	1,386	1,386	1,386
9									804	804	804	804	804	804	804
10										563	563	563	563	563	563
11											363	363	363	363	363
12												180	180	180	180
13													0	0	0
14														0	0
15															0
										Academic Year		75,594	75,594	75,594	75,594
										Fall Estimate		75,054	75,054	75,054	75,054

Source California Postsecondary Education 1995 Baselione Enrollment Projection.

leges, a participation model, rather than a student-flow model, was determined to be more valid for estimating enrollment demand

Historical community college participation rates were computed by dividing age-specific and racial/ethnic-specific enrollments by the corresponding California population cohort Rates were then analyzed and forecast

The Commission's Baseline Projection reflects a full recovery of rates to their 1989-1992 averages for community college students who did not already have a baccalaureate degree, and a partial recovery (60 percent) of college-going rates for community college students with baccalaureates The underlying assumption is that the community colleges may not fully recovery the loss of baccalaureate holders, resulting in part from the imposition on them of the $50 per-unit fee

The Commission's Low Alternative Projection returns rates to approximately the midpoint of the actual 1993 rate and the Baseline Projection rate for Fall 2005

A total of 660 rates were required to estimate enrollment demand for the community colleges.

Appendix B An Analysis of K-12 Funding Under Proposition 98

PROPOSITION 98 was approved by the electorate in 1988, and provides that the public schools, Kindergarten through the community colleges, shall receive a minimum funding guarantee based on whichever amount derived by three "tests" is the greatest The calculation of these tests appears to be relatively straightforward, but in practice has turned out to be extremely complex

In a brief summary, *EdSource*, a contributor to the California Parent Teachers Association journal, has described the requirements of the initiative, as amended subsequently by Proposition 111 in 1990, in the following terms (the words in bold are emphasized by *EdSource*)

> Entitled the "Classroom Instructional Improvement and Accountability Act," Proposition 98 (1988), as amended by Proposition 111 (1990) and legislation, mandates that
>
> - A minimum amount of funding be guaranteed for elementary and secondary schools and community colleges, according to one of three tests
>
> In years of **normal or stronger revenue growth**, the Proposition 98 guarantee is the larger of
>
> **Test 1:** The same share of the General Fund as in the base year of 1986-87 (as recalculated to account for shifts of property tax revenues to schools) or
>
> **Test 2:** The prior year's funding from state and property taxes, adjusted for inflation and enrollment **increases** "Inflation" is defined as the growth in per capita Personal Income
>
> In years of **low revenue growth**, when General Fund tax revenues per capita increase more slowly than per capita Personal Income, the Proposition 98 guarantee is
>
> **Test 3:** The same as Test 2 except inflation is defined as the growth in per capita General Fund revenues plus one-half percent The difference between this amount and what Test 2 would have yielded is to be restored to education funding in years of high revenue growth
>
> **Test 3b:** The reduction, compared to the previous year, must be no worse than cuts in state spending per capita for other budgeted services
>
> - The state maintain a "prudent" reserve (not defined)
> - Each school district produce an annual School Accountability Report Card (SARC) with information about student achievement, dropout

rates, class size, discipline, expenditures, programs, instructional materials, and other items

- The Governor and two-thirds of the Legislature must agree before any of the provisions of Proposition 98 can be suspended (PTA, 1994)

The computation of the spending levels under the various tests is complicated and controversial, and has been so since the initiative was passed The subsequent passage of Proposition 111 seems to have done little to ameliorate this situation Over the years, there have been disagreements between the Department of Finance and the Office of the Legislative Analyst -- and between others such as the California Teachers Association and the Department of Education -- about the proper funding level, and given the complexity of the law, it seems unlikely that a consensus will come to pass in the near future In part, the debate revolves around the items to be included or excluded from the law's coverage, the relationship between Personal Income growth and General Fund growth, the appropriate shares to be provided by State revenues versus property tax revenues, and the split in expenditures between K-12 schools and community colleges

The definition of Proposition 98 funding levels appears to lie with the Governor and the Legislature, since those two branches of government have the final say on appropriations for all programs and services To put this another way, in any given year, Proposition 98 funding levels are whatever the Governor and the Legislature say they are. Such an interpretation, however, ignores the fact that judicial action, and the case of California Teachers Association v Gould in particular, could result in a judgment of $3 billion or even more in favor of the public schools once it is finally adjudicated, possibly by the United States Supreme Court at some future date

CTA appears to have won the first round in this battle in the trial court, but the final outcome is far from certain

The point of this discussion is that the amount of money going from the General Fund to the K-12 system is anything but predetermined or governed by a precise, if mysterious, formula There is considerable room for policy judgment by both the Governor and the Legislature, as well as for judicial interpretation of the law's various components At the same time, it is probable that the State will endeavor to provide the public schools with sufficient funds to account for enrollment growth and some factor for inflation, which it might very well have done anyway if Proposition 98 had not been approved by the voters Accordingly, the Commission's baseline alternative assumes the K-12 system will receive annual increases at least equal to growth, which is running about 2 3 percent per year, plus inflation As to the latter, Proposition 98 defines inflation as the annual per capita increase in Personal Income, which is not really an inflation measure That increase is currently projected by the UCLA Business Forecasting Project to average 4 3 percent per year, compared to the annual increase projected by UCLA for the Consumer Price Index of 3 3 percent Those numbers suggest a baseline growth rate -- and a General Fund obligation -- for K-12 spending of 6 6 percent per year (2 3% + 4 3%)

Unfortunately, nothing with Proposition 98 is that simple Because of the way the tests work, and because the General Fund forecast does not anticipate an economic recession, Test Two should predominate in calculating the funding guarantee That test, as noted above, requires the percentage increases to be applied not only to the General Fund, but also to property taxes That raises the total amount of funding to a higher level, and dictates that if one of the sources of funding, in this case property taxes, cannot provide its full share, then the General Fund must make up the difference

It is here that Proposition 13 comes into play With growth projected by a reasonable interpretation of Proposition 98 to be 6 6 percent per year, and with property tax increases currently increasing at a lower rate, the General Fund may have to make up the difference The restriction on property tax growth imposed by Proposition 13 is two percent per year on most existing private property with the exception that such property is reassessed at one percent of its actual market value when sold, new construction is also taxed at one percent of market value In spite of these restrictions on property tax growth, the Rand Corporation believes that actual property tax revenues, caused primarily by property turnover and new construction, should increase at rates sufficient to relieve most of the pressure from the General Fund If that turns out to be true, K-12's share of General Fund revenue should increase from its current rate of 36 1 percent to 39 7 percent by 2005-06 according to the Commission's projection

Displays B-1 through B-4 show the Commission's interpretation of spending requirements under Proposition 98 As noted earlier, the proposition is so complex that other interpretations are possible, but the Commission believes that this spending scenario is reasonable Display B-1 presents the basic information necessary to compute each of the "tests," with Displays B-2, B-3, and B-4 showing the spending projection through 2005-06 under Tests One, Two, and Three, respectively

DISPLAY B-1 Basic Information Used to Compute Proposition 98 Funding Levels

Year	Population	Per Capita Pers. Income	Pct. Chng.	General Fund Revenue (Millions)	Per Capita General Fund Revenue	Per Cap. GF Rev. Pct. Chng.	K-12 Property Tax Revenue (Millions)	Per Capita Prop-erty Tax Revenue	Pct. Chng.	K-12 Enroll-ment	Pct. Chng.
1993-94	31,906,308	$21,406	N/A	$40,095 4	$1,257	N/A	$8,136	$255	N/A	5,166,261	N/A
1994-95	32,520,140	22,002	2 8%	42,352 6	1,302	3 6%	8,563	263	3 3%	5,244,764	1 5%
1995-96	33,188,930	23,571	7 1%	43,800 0	1,320	1 3%	8,809	265	0 8%	5,381,505	2 6%
1996-97	33,863,639	24,209	2 7%	46,700 0	1,379	4.5%	9,236	273	2 8%	5,525,732	2.7%
1997-98	34,524,435	25,179	4 0%	48,500 0	1,405	1 9%	9,698	281	3 0%	5,662,464	2.5%
1998-99	35,182,776	26,479	5 2%	50,900 0	1,447	3 0%	10,280	292	4 0%	5,784,356	2 2%
1999-00	35,824,238	27,434	3 6%	54,053 1	1,509	4 3%	10,897	304	4 1%	5,908,652	2.1%
2000-01	36,443,857	28,490	3 9%	56,603 7	1,553	2 9%	11,660	320	5 2%	6,040,835	2.2%
2001-02	37,055,570	29,650	4 1%	59,448 6	1,604	3 3%	12,476	337	5 2%	6,179,773	2.3%
2002-03	37,665,930	31,033	4 7%	62,391 6	1,656	3 2%	13,349	354	5 3%	6,329,262	2.4%
2003-04	38,252,427	32,633	5 2%	65,923 2	1,723	4 0%	14,283	373	5 4%	6,488,710	2.5%
2004-05	38,837,978	34,229	4 9%	69,945 3	1,801	4 5%	15,426	397	6 4%	6,650,000	2 5%
2005-06	39,424,114	35,645	4 1%	73,967 4	1,876	4 2%	16,660	423	6 4%	6,813,000	2 5%

Source Governor's Budget, 1995-96, UCLA Business Forecast, State Department of Finance, Demographic Research Unit.

DISPLAY B-2 Projection of Test One Under Proposition 98, 1993-94 to 2005-06

Year	1986-87 Prop. 98 Share of General Fund[1]	Prop. 98 K-12 Gen. Fund Expend. (000s)	Plus DOE & Other Support (000s)	K-12 Total (000s)	Total K-12 Percent of General Fund
1993-94	30 9%	$13,509,300	$971,496	$14,480,796	34 2%
1994-95	30 9%	13,506,400	1,744,833	15,251,233	36 0%
1995-96	30 9%	14,164,800	2,012,907	16,177,707	36 7%
1996-97	30 9%	14,450,680	2,053,165	17,280,422	36 4%
1997-98	30 9%	15,007,665	2,094,228	17,919,995	36 3%
1998-99	30 9%	15,750,313	2,136,113	18,746,263	36 1%
1999-00	30 9%	16,725,997	2,178,835	19,790,190	35 9%
2000-01	30 9%	17,515,245	2,222,412	20,649,529	35 8%
2001-02	30 9%	18,395,561	2,266,860	21,602,796	35 6%
2002-03	30 9%	19,306,232	2,312,197	22,588,124	35 5%
2003-04	30 9%	20,399,038	2,358,441	23,760,254	35 4%
2004-05	30 9%	21,643,622	2,405,610	25,088,266	35 2%
2005-06	30 9%	22,888,206	2,453,722	26,417,464	35 0%

1. As adjusted for property tax shifts in 1992-93 and 1993-94

Source Governor's Budget, 1995-96, CPEC 1994b, CPEC staff analysis.

DISPLAY B-3 Projection of Test Two Under Proposition 98, 1993-94 to 2005-06 (in Millions)

Year	Growth Factor[1]	Prop. 98 K-12 Gen. Fund Expend.	K-12 Property Tax Revenue (Millions)	Total Prop. 98 K-12 State and Local Expend.	Pct. Chng.	Plus DOE & Other Support	Total K-12 Expenditures	Total K-12 Pct. of GF	Prop. 98 Only Pct. of GF
1993-94	N/A	$13,509 3	$8,135 7	$21,645 0	N/A	$971 5	$14,480 8	36 1%	33 7%
1994-95	4 3%	13,506 4	8,563 2	22,069 6	2 0%	1,744 8	15,251 2	36 0%	31 9%
1995-96	9 7%	14,164 8	8,809 2	22,974 0	4 1%	2,012 9	16,177 7	36 9%	32 3%
1996-97	5 4%	14,975 3	9,236 0	24,211 3	5 4%	2,053 2	17,028 5	36 5%	32.1%
1997-98	6.5%	15,007 7	9,698 0	25,780 9	6 5%	2,094 2	17,101 9	37 5%	33.2%
1998-99	7 3%	15,750 3	10,280 0	27,666 5	7 3%	2,136 1	17,886 4	38 4%	34.2%
1999-00	5 8%	16,726 0	10,897 0	29,258 9	5 8%	2,178 8	18,904 8	38 0%	34.0%
2000-01	6 1%	17,515 2	11,660 0	31,040 2	6 1%	2,222 4	19,737 7	38 2%	34.2%
2001-02	6 4%	18,395 6	12,476 0	33,017 6	6 4%	2,266 9	20,662 4	38 4%	34 6%
2002-03	7 1%	19,306 2	13,349 0	35,356 7	7 1%	2,312 2	21,618 4	39 0%	35 3%
2003-04	7 7%	20,399 0	14,283 0	38,070 2	7 7%	2,358 4	22,757 5	39 7%	36 1%
2004-05	7 4%	21,643 6	15,426 0	40,878 6	7 4%	2,405 6	24,049 2	39 8%	36 4%
2005-06	6 6%	22,888 2	16,660 0	43,571 0	6 6%	2,453 7	25,341 9	39 7%	36.4%

1 The growth factor is the combination of enrollment growth plus per capita personal income growth

Sources Governor's Budget, 1995-96, UCLA Business Forecast, State Department of Finance, Demographic Research Unit, Michael A. Shires, Rand Corporation, CPEC staff analysis

DISPLAY B-4 Projection of Test Three Under Proposition 98, 1993-94 to 2005-06 (in Millions)

Year	Per Capita Gen. Fund Pct. Chng.	K-12 Enroll. Pct. Chng.	Growth Factor[1]	Prop. 98 K-12 Gen. Fund Expend.	K-12 Prop. Tax Rev. (Mil.)	Total Prop. 98 K 12 State and Local Expend.	Pct. Chng.	Plus DOE & Other Support	K-12 Total	Total K-12 Pct. of GF	Prop. 98 Only Pct. of GF
1993-94	N/A	N/A	N/A	$13,509	$8,135 7	$21,645	N/A	$971 5	$14,480 8	36 1%	33 7%
1994-95	3 6%	1.5%	5 7%	13,506	8,563 2	22,070	5 5%	1,744 8	15,251 2	36 0%	31.9%
1995-96	1 3%	2 6%	4 4%	14,165	8,809 2	22,974	4 9%	2,012 9	16,177 7	36 9%	32.3%
1996-97	4 5%	2 7%	7 7%	15,502	9,236 0	24,738	8.7%	2,053 2	17,554 8	37 6%	33.2%
1997-98	1 9%	2 5%	4 8%	16,237	9,698 0	25,935	5 0%	2,094 2	18,331 4	37 8%	33 5%
1998-99	3 0%	2 2%	5.6%	17,117	10,280 0	27,397	5 7%	2,136 1	19,253 4	37 8%	33 6%
1999-00	4 3%	2 1%	6 9%	18,402	10,897 0	29,299	6 9%	2,178 8	20,581 0	38 1%	34 0%
2000-01	2 9%	2 2%	5 7%	19,302	11,660 0	30,962	5 7%	2,222 4	21,524 4	38 0%	34 1%
2001-02	3 3%	2 3%	6 1%	20,372	12,476 0	32,848	6 1%	2,266 9	22,639 2	38 1%	34 3%
2002-03	3 2%	2 4%	6 2%	21,526	13,349 0	34,875	6.2%	2,312 2	23,837 8	38 2%	34 5%
2003-04	4 0%	2 5%	7 1%	23,054	14,283 0	37,337	7 1%	2,358 4	25,412 1	38 5%	35 0%
2004-05	4 5%	2 5%	7 5%	24,706	15,426 0	40,132	7 5%	2,405 6	27,111 7	38 8%	35 3%
2005-06	4 2%	2 5%	7 1%	26,333	16,660.0	42,993	7 1%	2,453 7	28,787 0	38 9%	35 6%

1. Enrollment growth plus growth in General Fund revenues per capita, plus one-half percent of the prior year level

Sources Governor's Budget, 1995-96, UCLA Business Forecast, State Department of Finance, Demographic Research Unit, CPEC staff analysis

Appendix C An Analysis of Bonded Debt in California

THE STATE CONSTITUTION provides that no debt above $300,000 may be created -- other than to repel an invasion in time of war -- without a majority vote of the people voting in a general election Bonds approved in this manner become the general obligations, and are backed by the full faith and credit, of the State, debt service for instruments of this type must be paid from the General Fund Other types of bonds can also be issued for various purposes without a vote of the people, but they are required to have a specific source of revenue to service the debt thus created, hence the term "revenue bonds " In the California State University, for example, dormitories and parking lots have been constructed with the proceeds from bonds of this type, with debt service derived from special funds in the State Treasury financed by dormitory rentals and parking fees In recent years, however, the Legislature has authorized the sale of bonds for more general purposes such as the construction of high technology facilities, and has included the debt service for those bonds with the appropriations for general support of the system of higher education benefiting from them Some still refer to these as revenue bonds, but in recent years, the more appropriate term "lease-payment bonds" has gained favor There is no constitutional or statutory limit on the total amount of debt that can be incurred, regardless of the way in which it is incurred

Display C-1 shows the total amount of bonded debt for all purposes in California over the past five years, and it can readily be seen that the combination of virtually

DISPLAY C-1 ***Bond*** *Sales and Redemptions, 1989-90 to 1993-94 (Includes both General* ***Obligation*** *and Lease-Payment Bonds)*

Fiscal Year	General Fund Revenue (000s)	Bond Sales (000s)	Debt Service (000s)	Debt Service as a % of General Fund
1989-90	$38,546,178	$1,375,000	$758,147	1.97%
1990-91	40,563,041	2,956,000	955,294	2.36%
1991-92	42,925,671	4,148,000	1,365,450	3.18%
1992-93	42,757,910	2,617,706	1,749,095	4.09%
1993-94	40,527,732	2,042,665	2,112,544	5 21%
Ave. Annual Bond Sales:		$2,627,874		

Sources. California State Treasurer

flat State revenues coincident with rapidly rising debt service requirements has produced a situation where debt now exceeds five percent of General Fund Revenues (5 21 percent as of 1993-94) That debt burden, together with California's recession and even the uncertainty of the political climate, has led to a lowering of California's bond rating from its traditional AAA level, which in turn results in the bonds being sold at slightly higher interest rates, with proportionately higher debt service requirements

As Display C-1 shows, California sold an average of $2 6 billion worth of bonds each year over the five-year period between 1989-90 and 1993-94 Due to the defeat of various bond issues, however, it is unlikely that a similar amount will be sold in 1994-95

Those sales, however, while impressive, represent much less than half of the needs projected by various branches of State government Display C-2 presents a five-year projection as compiled recently by the Legislative Analyst The amounts for transportation (in italics and shaded) are not included in the totals since the primary revenue source for that category is gasoline taxes and not bonds, yet even with that substantial exclusion, the latest agency projections indicate an annual need of $5 4 billion per year In the Commission's view, and as discussed in Chapter Five of this report, the amount shown for higher education in the display -- $1 3 billion per year -- is now somewhat overstated and should probably be reduced to about $1 0 billion per year

Several questions emerge from these facts (1) can California meet its future capital outlay needs through the sale of general obligation or other bonds, (2) if it cannot, what other funding sources might be available, (3) if bonds cannot be used to meet every need, what might the limit on annual bond sales be, and (4) what level of bond sales might be allowable to continue debt service at about 5 or 6 percent of General Fund revenues?

In August 1994, the State Treasurer sold $700 million worth of general obligation bonds with maturities ranging from one to 30 years at interest rates between 3 9 and 6 2 percent (Treasurer, 1994) In general, the longer the term, the higher the interest rate As Displays C-3 and C-4 indicate, total interest payments for that sale will eventually reach $535 5 million, which means that total debt service will be $1,235 5 million by the time the entire $700 million issue is redeemed in 2024 Most of the interest will be due in the early years of the redemption cycle -- about 75 percent of the interest is due in the first half of the 30-year redemption period Had these bonds been of the lease-payment variety, it is probable that higher interest rates, bond insurance, and related administrative costs would have increased the total cost of the issue by $150 to $175 million, or about 30 percent

As noted in the discussion of the General Fund in Chapter Six, the Commission believes that California will experience annual growth in the General Fund of about 5 2 percent per year between 1994-95 and 2005-06, a rate that should approximate anticipated expenditures over the same period of time

DISPLAY C-2 Projected Five-Year Capital Outlay Needs for the State and K-12 Education, 1994-95 Through 1998-99 Excluding the Department of Transportation

Category	Five-Year Total/Average: As of Feb. 1994 Report (Millions)	As of Oct. 1994 Report (Millions)	As of Feb. 1995 Report[1] (Millions)	Feb. 1995 Annual Average (Millions)
Executive	$48	$0	$50	$10
State and Consumer Services	1,510	1,500	1,050	210
Transportation[2]	*14,937*	*14,900*	*14,721*	*2,944*
Resources	560	600	719	144
Health and Welfare	337	300	403	81
Youth and Adult Corrections	1,788	5,000	7,036	1,407
K-12 Education	15,000	15,000	11,000	2,200
Higher Education	6,343	6,300	6,563	1,313
General Government	259	300	273	55
Totals	$40,782	$43,900	$41,815	$8,363
Totals Without Transportation	$25,845	$29,000	$27,094	$5,419

1. Includes $14 5 billion to be funded from state and federal gasoline tax revenues, state truck weight fees, and state toll bridge revenues for the Department of Transportation The $11 billion for K-12 is an estimate only The Analyst reports that there is no statewide five-year plan
2. Because they are funded almost entirely from gasoline tax revenues and not from bonds or other sources, transportation expenditures are not included in the totals

Sources Office of the Legislative Analyst.

Given that growth rate, and assuming stability in interest rates over that period, California will probably be able to finance less than half of its capital outlay needs through bonds, regardless of type To illustrate this, Displays C-5 through C-9 offer numerical and graphical illustrations of various bond sale scenarios Displays C-5 and C-6 show what happens to debt service levels as a percentage of the General Fund with annual bond sales of $2 0 billion, $3 0 billion, and $4 0 billion per year over the next 20 years These amounts are increased by three percent per year to reflect increases in inflation Display C-6 shows the percentages graphically Displays C-7 through C-9 show what bond sales would have to be to keep debt service at five percent and six percent of the General Fund, respectively, over the next 20 years Display C-9 shows the data in a three-dimensional area chart

DISPLAY C-3 Amortization of a $700 Million Bond Issue Over Thirty Years[1]

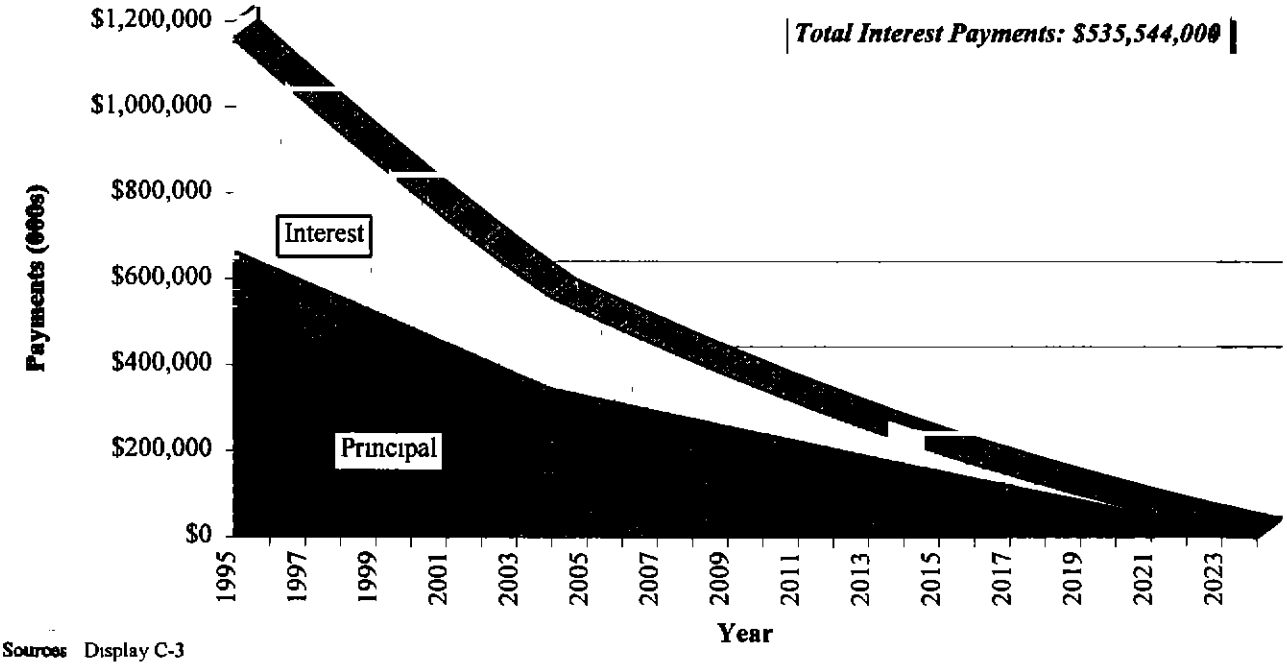
	Principal		Interest		
Year	Annual Amount (000s)	Cumulative Amount (000s)	Annual Amount (000s)	Cumulative Amount (000s)	Cumulative Total (000s)
1995	$35,600	$35,600	$40,012	$40,012	$75,612
1996	35,600	71,200	38,232	78,243	149,443
1997	35,600	106,800	36,701	114,944	221,744
1998	35,600	142,400	35,099	150,042	292,442
1999	35,600	178,000	33,408	183,450	361,450
2000	35,600	213,600	31,628	215,078	428,678
2001	35,600	249,200	29,848	244,926	494,126
2002	35,600	284,800	28,032	272,958	557,758
2003	35,600	320,400	26,180	299,138	619,538
2004	35,600	356,000	22,265	321,403	677,403
2005	17,500	373,500	20,343	341,745	715,245
2006	17,500	391,000	19,380	361,125	752,125
2007	17,500	408,500	18,400	379,525	788,025
2008	17,500	426,000	17,403	396,928	822,928
2009	17,500	443,500	16,396	413,324	856,824
2010	17,500	461,000	15,390	428,714	889,714
2011	17,500	478,500	14,340	443,054	921,554
2012	17,500	496,000	13,290	456,344	952,344
2013	17,500	513,500	12,240	468,584	982,084
2014	17,500	531,000	11,190	479,774	1,010,774
2015	16,900	547,900	10,140	489,914	1,037,814
2016	16,900	564,800	9,126	499,040	1,063,840
2017	16,900	581,700	8,112	507,152	1,088,852
2018	16,900	598,600	7,098	514,250	1,112,850
2019	16,900	615,500	6,084	520,334	1,135,834
2020	16,900	632,400	5,070	525,404	1,157,804
2021	16,900	649,300	4,056	529,460	1,178,760
2022	16,900	666,200	3,042	532,502	1,198,702
2023	16,900	683,100	2,028	534,530	1,217,630
2024	16,900	700,000	1,014	535,544	1,235,544
Totals	**$700,000**		**$535,544**		**$1,235,544**

1. Interest rates on this bond issue varied from 4 3 to 11 percent depending on amount and maturity The rate for most of the bond issue was between 5 0 and 6 0 percent

Sources California State Treasurer

Concerning the last of these graphics, it should be noted that keeping debt service at the 5 to 6 percent level involves selling different amounts of bonds each year due to the vagaries of redemption schedules, and that no bonds at all should be sold in 1994-95 and 1995-96 under the five percent scenario -- other than the $700 million that has already been sold -- since debt service already exceeds 5 percent of General Fund revenue In 1996-97, $800 million and $2 3 billion can be sold, and about $2 0 to $2 5 billion for each of the next five years before larger amounts are possible due to General Fund revenue growth Yet even by the final year of the Commission's capital outlay projection, 2005-06, a reasonable bond sale level only reaches $3 1 to $3 6 billion, far less than current estimates for total statewide need -- estimated by the Legislative Analyst at $5 4 billion per year -- even before any consideration is given to inflationary pressures

DISPLAY C-4 Principal and Interest Payments for a $700 Million General Obligation Bond Redemption, 1965 to 2024



Sources: Display C-3

DISPLAY C-5 Schedule of Outstanding General Obligation Bond Debt Service, 1990 to 2024, Including the Most Recent Sale of $700 Million

		Currently Outstanding Bonds				Simulation A[2]		Simulation B[3]		Simulation C[4]	
	Fiscal Year Ending	GO Bond Debt Service (000s)	Lease-Payment Bond Debt Service (000s)	Total (000s)	General Fund Revenue (000s)[1]	Debt Service (000s)	Pct. of Gen. Fund Rev.	Debt Service (000s)	Pct. of Gen. Fund Rev.	Debt Service (000s)	Pct. of Gen. Fund Rev.
Actual	1990	$633,626	$124,521	$758,147	$38,546,178	$758,147	1 97%	$758,147	1 97%	$758,147	1 97%
	1991	812,806	142,488	955,294	40,563,041	955,294	2 36%	955,294	2 36%	955,294	2 36%
	1992	1,156,999	208,451	1,365,450	42,925,671	1,365,450	3 18%	1,365,450	3 18%	1,365,450	3 18%
	1993	1,472,581	276,514	1,749,095	42,757,910	1,749,095	4 09%	1,749,095	4 09%	1,749,095	4 09%
	1994	1,748,001	364,543	2,112,544	40,527,732	2,112,544	5 21%	2,112,544	5 21%	2,112,544	5 21%
Projected	1995	1,813,845	408,263	2,222,108	42,400,000	2,438,146	5 75%	2,546,166	6 01%	2,654,185	6 26%
	1996	1,865,230	451,358	2,316,588	43,800,000	2,750,061	6 28%	2,966,797	6 77%	3,183,533	7 27%
	1997	1,794,725	451,817	2,246,541	46,700,000	2,899,597	6 21%	3,226,125	6 91%	3,552,653	7 61%
	1998	1,651,994	452,531	2,104,525	48,500,000	2,979,174	6 14%	3,416,499	7 04%	3,853,824	7 95%
	1999	1,575,985	452,500	2,028,485	50,900,000	3,126,545	6 14%	3,675,574	7 22%	4,224,604	8 30%
	2000	1,509,956	452,520	1,962,475	54,053,100	3,285,561	6 08%	3,947,105	7 30%	4,608,648	8 53%
	2001	1,454,724	458,878	1,913,602	56,603,700	3,463,380	6 12%	4,238,269	7 49%	5,013,158	8 86%
	2002	1,435,045	425,273	1,860,319	59,448,600	3,638,402	6 12%	4,502,239	7 57%	5,382,879	9 05%
	2003	1,328,548	421,360	1,749,909	62,391,600	3,757,854	6 02%	4,761,827	7 63%	5,765,800	9 24%
	2004	1,197,110	420,577	1,617,687	65,923,200	3,851,205	5 84%	4,967,964	7 54%	6,084,723	9 23%
	2005	1,070,394	419,887	1,490,281	69,945,300	3,898,932	5 57%	5,103,257	7 30%	6,307,582	9 02%
	2006	988,181	419,826	1,408,007	73,967,400	3,994,295	5 40%	5,287,438	7 15%	6,580,582	8 90%
	2007	901,578	359,701	1,261,279	77,813,705	4,027,732	5 18%	5,410,959	6 95%	6,794,185	8 73%
	2008	847,921	348,846	1,196,768	81,860,017	4,145,941	5 06%	5,620,528	6 87%	7,095,115	8 67%
	2009	803,513	358,798	1,162,311	86,116,738	4,296,812	4 99%	5,864,063	6 81%	7,431,313	8 63%
	2010	707,332	324,266	1,031,598	90,594,809	4,354,111	4 81%	6,015,368	6 64%	7,676,625	8 47%
	2011	599,364	310,694	910,058	95,305,739	4,423,224	4 64%	6,179,807	6 48%	7,936,390	8 33%
	2012	423,208	277,749	700,957	100,261,637	4,407,495	4 40%	6,260,764	6 24%	8,114,033	8 09%
	2013	294,479	268,620	563,100	105,475,242	4,465,811	4 23%	6,417,167	6 08%	8,368,523	7 93%
	2014	211,176	253,289	464,465	110,959,955	4,566,235	4 12%	6,617,120	5 96%	8,668,005	7 81%
	2015	191,503	248,387	439,889	116,729,873	4,741,975	4 06%	6,893,018	5 91%	9,044,061	7 75%

1 1989-90 to 1993-94 are actuals from the State Treasurer 1994-95 and 1995-96 are Legislative Analyst's projections Subsequent years are based on the CPEC projection

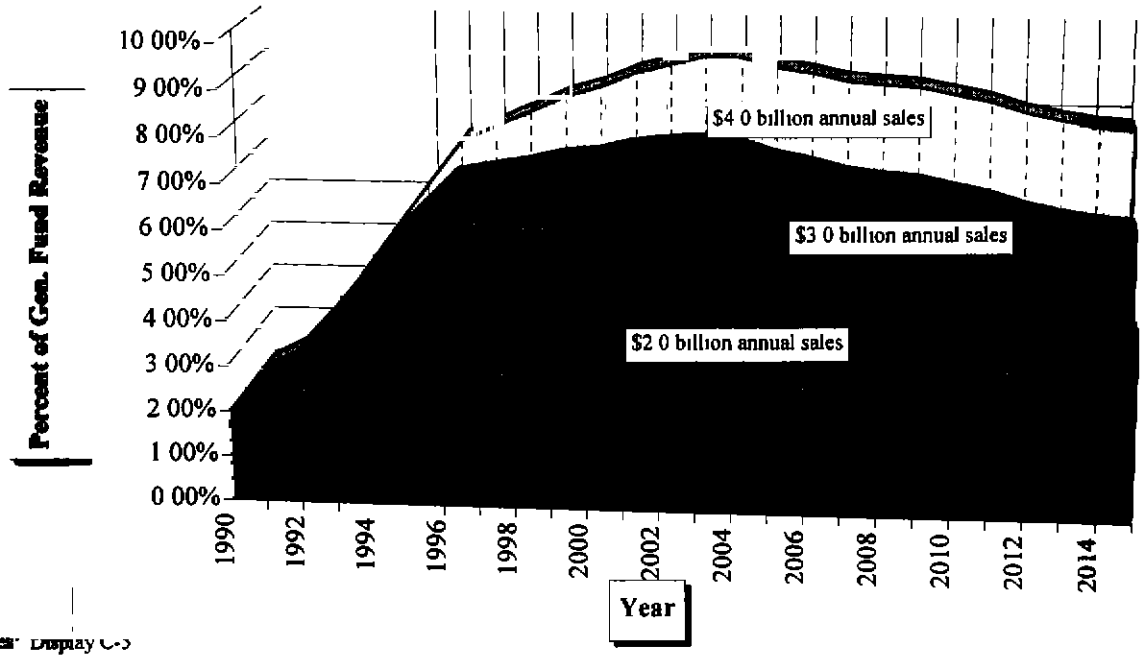
2 Assumes $2 0 billion in annual bond sales at amortization rates based on the most recent sale of bonds in August 1994 Also assumes that the $2 0 billion in sales will be increased by 3 0 percent per year through 2015

3 Assumes $3 0 billion in annual bond sales at amortization rates based on the most recent sale of bonds in August 1994 Also assumes that the $3 0 billion in sales will be increased by 3 0 percent per year through 2015

4 Assumes $4 0 billion in annual bond sales at amortization rates based on the most recent sale of bonds in August 1994 Also assumes that the $4 0 billion in sales will be increased by 3 0 percent per year through 2015

Sources. State Treasurer, Office of the Legislative Analyst, CPEC staff analysis.

DISPLAY C-6 Projected Bond Debt Service (Bond Sales Increased 3.0 Percent Annually to Reflect Price Inflation) as a Percentage of Projected General Fund Revenue, 1965 to 2024



Sources: Display C-5

DISPLAY C-7 Permissible Bond Sales (Both GO and Lease-Payment) to Keep Debt Service at No More Than Five Percent of the General Fund, 1995 to 2015

	Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col. G	Col. H	Col. I
	Fiscal Year Ending	GO Bond Debt Service Subtotal (000s)	Lease-Payment Bond Debt Service (000s)	Debt Service on All Sold Bonds (000s)	Actual & Projected General Fund Revenue (000s)	Annual Bond Sales (millions)	5% of the General Fund	Projected Debt Service (000s)	Column H as a Percent of Column E
Actual	1990	$633 6	$124 5	$758 1	$38,546 2	$1,375 0	$1 927 3	$758 1	1 97%
	1991	812 8	142 5	955 3	40,563 0	2,956 0	2,028 2	955 29	2 36%
	1992	1,157 0	208 5	1,365 5	42,925 7	4,148 0	2,146 3	1,365 45	3 18%
	1993	1,472 6	276 5	1,749 1	42,757 9	2,617 7	2,137 9	1,749 10	4 09%
	1994	1,748 0	364 5	2,112 5	40,527 7	2,042 7	2,026 4	2,112 54	5 21%
Projected	1995	1,813 8	408 3	2 222 1	42,400 0	0 0	2,120 0	2,222 1	5 24%
	1996	1,865 2	451 4	2 316 6	43,800 0	0 0	2 190 0	2 316 6	5 29%
	1997	1,794 7	451 8	2,246 5	46,700 0	800 0	2 335 0	2 333 0	5 00%
	1998	1,652 0	452 5	2,104 5	48,500 0	2,200 0	2,425 0	2,426 5	5 00%
	1999	1,576 0	452 5	2,028 5	50,900 0	1 850 0	2,545 0	2,543 0	5 00%
	2000	1,510 0	452 5	1,962 5	54,053 1	2,200 0	2,702 7	2,703 3	5 00%
	2001	1,454 7	458 9	1,913 6	56,603 7	1,800 0	2,830 2	2,832 2	5 00%
	2002	1,435 0	425 3	1,860 3	59,448 6	2,000 0	2,972 4	2,974 0	5 00%
	2003	1,328 5	421 4	1 749 9	62,391 6	2,600 0	3,119 6	3,118 3	5 00%
	2004	1,197 1	420 6	1 617 7	65,923 2	3,200 0	3 296 2	3 299 0	5 00%
	2005	1 070 4	419 9	1,490 3	69,945 3	3,400 0	3 497 3	3 497 9	5 00%
	2006	988 2	419 8	1,408 0	73,967 4	3,100 0	3,698 4	3 698 8	5 00%
	2007	901 6	359 7	1,261 3	77,813 7	3,900 0	3,890 7	3,889 0	5 00%
	2008	847 9	348 8	1,196 8	81,860 0	3,700 0	4,093 0	4,095 4	5 00%
	2009	803 5	358 8	1,162 3	86,116 7	3,450 0	4,305 8	4,306 3	5 00%
	2010	707 3	324 3	1,031 6	90,594 8	4,600 0	4,529 7	4,530 6	5 00%
	2011	599 4	310 7	910 1	95,305 7	4,600 0	4,765 3	4,764 6	5 00%
	2012	423 2	277 7	701 0	100,261 6	5,700 0	5,013 1	5,013 2	5 00%
	2013	294 5	268 6	563 1	105,475 2	5,450 0	5,273 8	5,276 6	5 00%
	2014	211 2	253 3	464 5	110,960 0	5,450 0	5 548 0	5,552 4	5 00%
	2015	191 5	248 4	439 9	116,729 9	5,000 0	5,836 5	5,839 1	5 00%

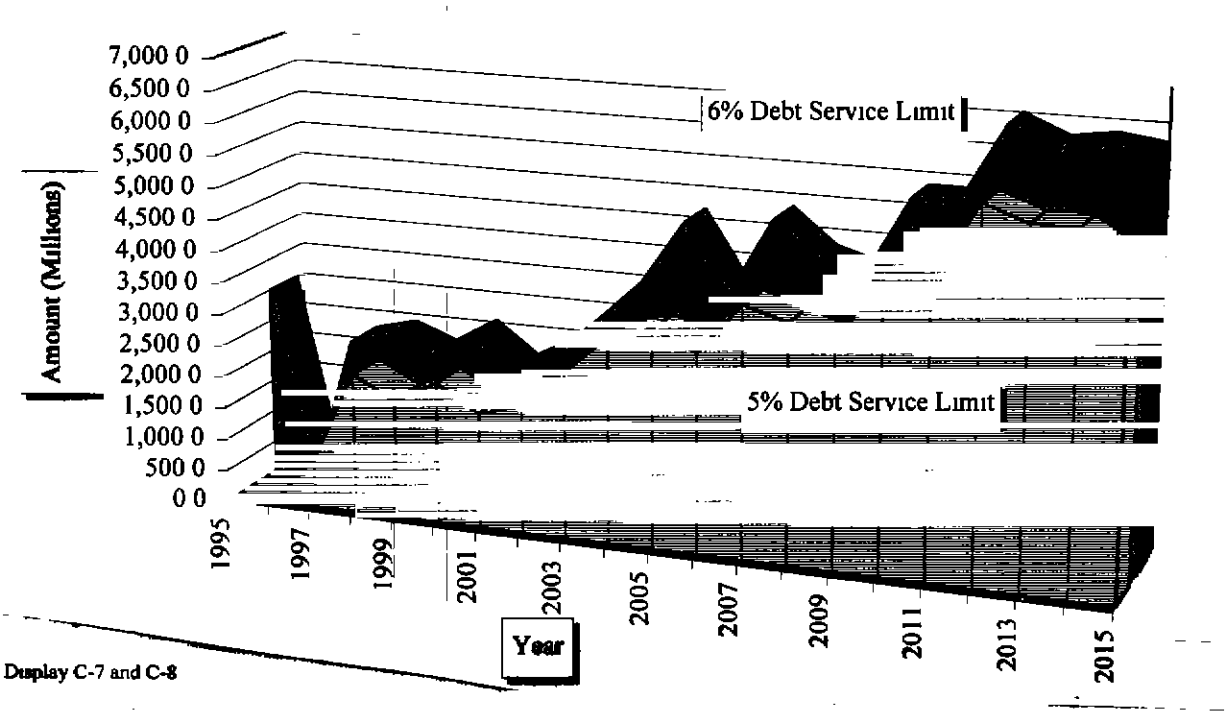
Sources California State Treasurer; CPEC staff analysis.

DISPLAY C-8 Permissible Bond Sales (Both GO and Lease-Payment) to Keep Debt Service at No More Than Six Percent of the General Fund, 1995 to 2015

	Col. A	Col. B	Col. C	Col. D	Col. E	Col. F	Col G	Col. H	Col. I
	Fiscal Year Ending	GO Bond Debt Service Subtotal (000s)	Lease-Payment Bond Debt Service (000s)	Debt Service on All Sold Bonds (000s)	Actual & Projected General Fund Revenue (000s)	Annual Bond Sales (millions)	6% of the General Fund	Projected Debt Service (000s)	Column H as a Percent of Column E
Actual	1990	$633 6	$124 5	$758 1	$38,546 2	$1,375 0	$2,312 8	$758 1	1 97%
	1991	812 8	142 5	955 3	40,563 0	2,956 0	2 433 8	955 29	2 36%
	1992	1,157 0	208 5	1,365 5	42,925 7	4 148 0	2 575 5	1 365 45	3 18%
	1993	1,472 6	276 5	1,749 1	42,757 9	2 617 7	2,565 5	1,749 10	4 09%
	1994	1,748 0	364 5	2,112 5	40,527 7	2,042 7	2,431 7	2,112 54	5 21%
Projected	1995	1,813 8	408 3	2,222 1	42,400 0	2,995 0	2,544 0	2,545 6	6 00%
	1996	1,865 2	451 4	2,316 6	43,800 0	0 0	2,628 0	2,632 5	6 01%
	1997	1 794 7	451 8	2,246 5	46,700 0	2,275 0	2,802 0	2 801 6	6 00%
	1998	1,652 0	452 5	2,104 5	48,500 0	2,450 0	2 910 0	2 911 6	6 00%
	1999	1,576 0	452 5	2,028 5	50,900 0	2,200 0	3,054 0	3,054 8	6 00%
	2000	1,510 0	452 5	1,962 5	54,053 1	2,600 0	3,243 2	3 245 9	6 00%
	2001	1,454 7	458 9	1,913 6	56,603 7	2,100 0	3,396 2	3,393 7	6 00%
	2002	1,435 0	425 3	1,860 3	59,448 6	2,450 0	3,566 9	3,569 5	6 00%
	2003	1,328 5	421 4	1 749 9	62,391 6	3,050 0	3,743 5	3,746 5	6 00%
	2004	1 197 1	420 6	1,617 7	65,923 2	3,700 0	3 955 4	3 955 3	6 00%
	2005	1,070 4	419 9	1,490 3	69,945 3	4,700 0	4,196 7	4,198 6	6 00%
	2006	988 2	419 8	1,408 0	73,967 4	3,650 0	4,438 0	4,436 7	6 00%
	2007	901 6	359 7	1,261 3	77,813 7	4,850 0	4,668 8	4,671 3	6 00%
	2008	847 9	348 8	1,196 8	81,860 0	4,300 0	4,911 6	4,915 2	6 00%
	2009	803 5	358 8	1,162 3	86,116 7	4,100 0	5,167 0	5 165 0	6 00%
	2010	707 3	324 3	1,031 6	90,594 8	5,350 0	5 435 7	5 436 5	6 00%
	2011	599 4	310 7	910 1	95 305 7	5,350 0	5,718 3	5,718 2	6 00%
	2012	423 2	277 7	701 0	100,261 6	6,550 0	6,015 7	6,019 9	6 00%
	2013	294 5	268 6	563 1	105,475 2	6,250 0	6,328 5	6,328 9	6 00%
	2014	211 2	253 3	464 5	110,960 0	6,350 0	6,657 6	6,656 0	6 00%
	2015	191 5	248 4	439 9	116,729 9	6,250 0	7,003 8	7,008 9	6 00%

Sources California State Treasurer; CPEC staff analysis

DISPLAY C-9 *Permissible Annual Bond Sales to Keep Debt Service at No More Than Five Percent or Six Percent of General Fund Revenues*



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-- *University of California, Instruction and Research Space Summary and Analysis* Oakland Office of the President, November 1994d

CALIFORNIA POSTSECONDARY EDUCATION COMMISSION

THE California Postsecondary Education Commission is a citizen board established in 1974 by the Legislature and Governor to coordinate the efforts of California's colleges and universities and to provide independent, non-partisan policy analysis and recommendations to the Governor and Legislature

Members of the Commission

The Commission consists of 17 members Nine represent the general public, with three each appointed for six-year terms by the Governor, the Senate Rules Committee, and the Speaker of the Assembly Six others represent the major segments of postsecondary education in California Two student members are appointed by the Governor

As of June 1995, the Commissioners representing the general public are

Henry Der, San Francisco, *Chair*
Guillermo Rodriguez, Jr , San Francisco, *Vice Chair*
Elaine Alquist, Santa Clara
Mim Andelson, Los Angeles
C Thomas Dean, Long Beach
Jeffrey I Marston, San Diego
Melinda G Wilson, Torrance
Linda J Wong, Los Angeles
Ellen F Wright, Saratoga

Representatives of the segments are

Roy T Brophy, Fair Oaks, appointed by the Regents of the University of California,

Yvonne W Larsen, San Diego, appointed by the California State Board of Education,

Alice Petrossian, Glendale, appointed by the Board of Governors of the California Community Colleges,

Ted J Saenger, San Francisco, appointed by the Trustees of the California State University,

Kyhl Smeby, Pasadena, appointed by the Governor to represent California's independent colleges and universities, and

Frank R Martinez, San Luis Obispo, appointed by the Council for Private Postsecondary and Vocational Education

The two student representatives are
Stephen Lesher, Meadow Vista
Beverly A Sandeen, Costa Mesa

Functions of the Commission

The Commission is charged by the Legislature and Governor to "assure the effective utilization of public postsecondary education resources, thereby eliminating waste and unnecessary duplication, and to promote diversity, innovation, and responsiveness to student and societal needs "

To this end, the Commission conducts independent reviews of matters affecting the 2,600 institutions of postsecondary education in California, including community colleges, four-year colleges, universities, and professional and occupational schools

As an advisory body to the Legislature and Governor, the Commission does not govern or administer any institutions, nor does it approve, authorize, or accredit any of them Instead, it performs its specific duties of planning, evaluation, and coordination by cooperating with other State agencies and non-governmental groups that perform those other governing, administrative, and assessment functions

Operation of the Commission

The Commission holds regular meetings throughout the year at which it debates and takes action on staff studies and takes positions on proposed legislation affecting education beyond the high school in California By law, its meetings are open to the public Requests to speak at a meeting may be made by writing the Commission in advance or by submitting a request before the start of the meeting

The Commission's day-to-day work is carried out by its staff in Sacramento, under the guidance of its executive director, Warren Halsey Fox, Ph D , who is appointed by the Commission

Further information about the Commission and its publications may be obtained from the Commission offices at 1303 J Street, Suite 500, Sacramento, California 98514-2938, telephone (916) 445-7933

A CAPACITY FOR GROWTH: Enrollments, Resources, and Facilities for California Higher Education, 1993-94 to 2005-06

Commission Report 95-9

ONE of a series of reports published by the California Postsecondary Education Commission as part of its planning and coordinating responsibilities Single copies may be obtained without charge from the Commission at 1303 J Street, Suite 500, Sacramento, California 95814-2938 Recent reports include

94-20 *Student Profiles, 1994· The Latest in a Series of Annual Factbooks About Student Participation in California Higher Education* (December 1994)

1995

95-1 *A New State Policy on Community College Student Charges* (February 1995)

95-2 *The WICHE Compact: An Assessment of California's Continued Membership in the Western Interstate Commission for Higher Education* (February 1995)

95-3 *The Challenge of the Century. Planning for Record Student Enrollment and Improved Outcomes in California Postsecondary Education* (April 1995)

95-4 *Faculty Salaries in California's Public Universities, 1995-96· A Report to the Legislature and the Governor in Response to Senate Concurrent Resolution No 51* (April 1995)

95-5 *Legislative and State Budget Priorities of the Commission, 1995· A Report of the California Postsecondary Education Commission* (April 1995)

95-6 *Executive Compensation in California Public Higher Education, 1994-95· The Third in a Series of Annual Reports to the Governor and Legislature in Response to the 1992 Budget Act* (June 1995)

95-7 *Approval of the Escondido Center of the Palomar Community College District: A Report to the Governor and Legislature in Response to a Request from the Board of Governors of the California Community Colleges* (June 1995)

95-8 *Perspective of the California Postsecondary Education Commission on Educational Equity* (June 1995)

95-9 *A Capacity for Growth Enrollments, Resources, and Facilities for California Higher Education, 1993-94 to 2005-06* (August 1995)

95-10 *Financial Condition of Independent California Colleges and Universities: A Report of the California Postsecondary Education Commission* (August 1995)

95-11 *Fiscal Profiles, 1995: The Fifth in a Series of Factbooks About the Financing of California Higher Education* (August 1995)

A CAPACITY FOR GROWTH: Enrollments, Resources, and Facilities for California Higher Education, 1993-94 to 2005-06 • Commission Report 95-9